

Pioneer Energy Services

PIONEER**GAMMA RAY CCL
CEMENT BOND VDL
SECTOR MAP**

Company	EnCana Oil & Gas (USA) Inc.	Country	USA
Well	Drieth 4E-6H-I368		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	AP1 #: 05-123-37620	Other Services	None
SHL: 2395' FSL & 560' FEL NE SE			
SEC 6 TWP 3N RGE 68W			
Permanent Datum	GL	Elevation	5111
Log Measured From	KB		K.B. 5141 D.F. 5140 G.L. 5111
Drilling Measured From	KB		

Date	October 24, 2014
Run Number	1
Depth Driller	11760
Depth Logger	7485
Bottom Logged Interval	7485
Top Log Interval	0
Open Hole Size	8-3/4"
Type Fluid	WBM
Density / Viscosity	11.35 / 51
Max. Recorded Temp.	NA
Estimated Cement Top	720
Time Well Ready	0630
Time Logger on Bottom	0730
Equipment Number	49
Location	Ft. Morgan, CO
Recorded By	Tracy Crane
Witnessed By	Nate Curley

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size	Wgt/Ft	Top	Bottom			
Surface String	16	80	0	30			
Prot. String	9 5/8	40	0	886			
Production String	7"	26 lbs	0	7573			
Liner							

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

Depth Correlated to 7" Tally & MWD GR log at 7276'

H&P #522

Thank You for using Pioneer Energy Services

SO# 2-013699

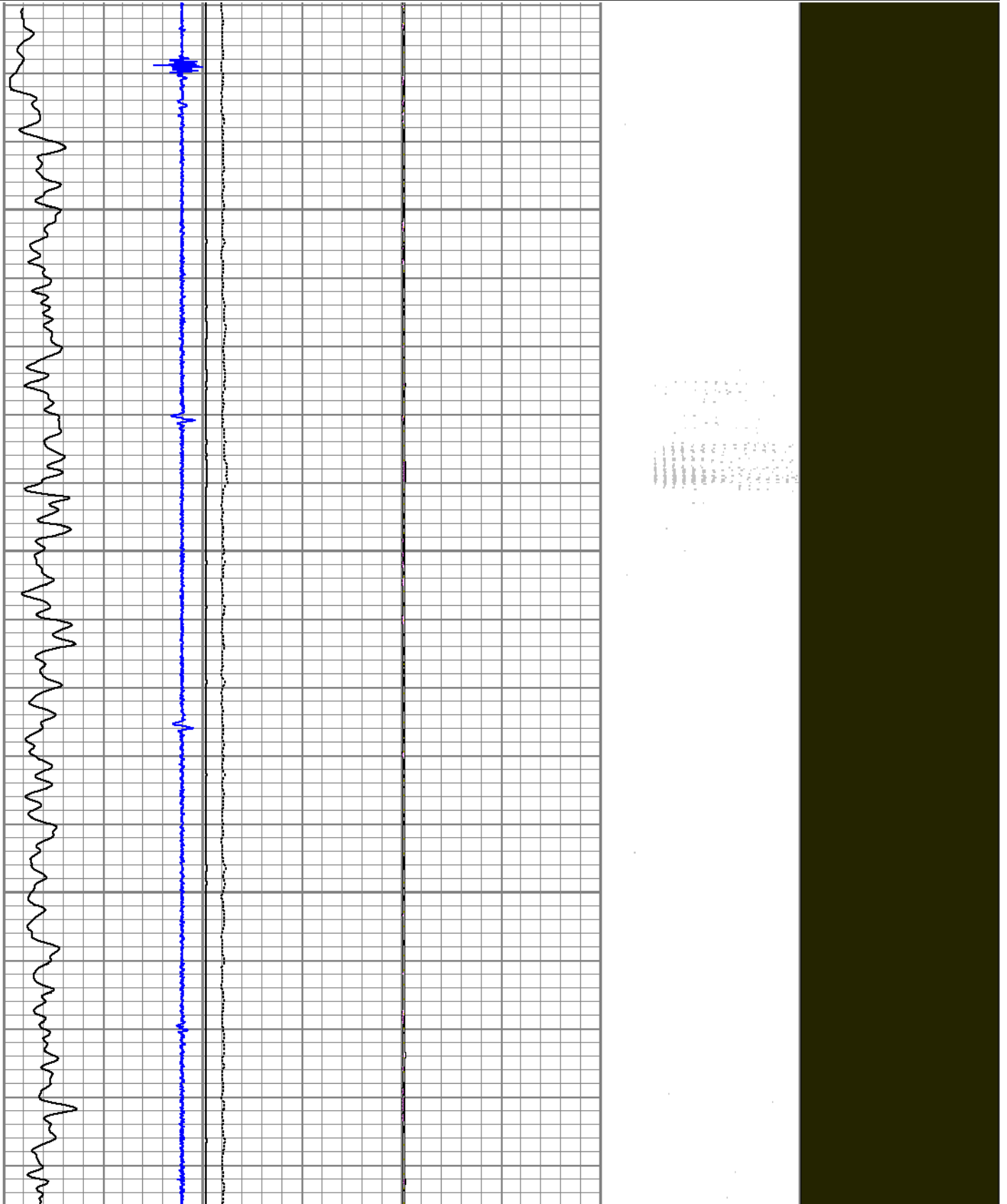
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)

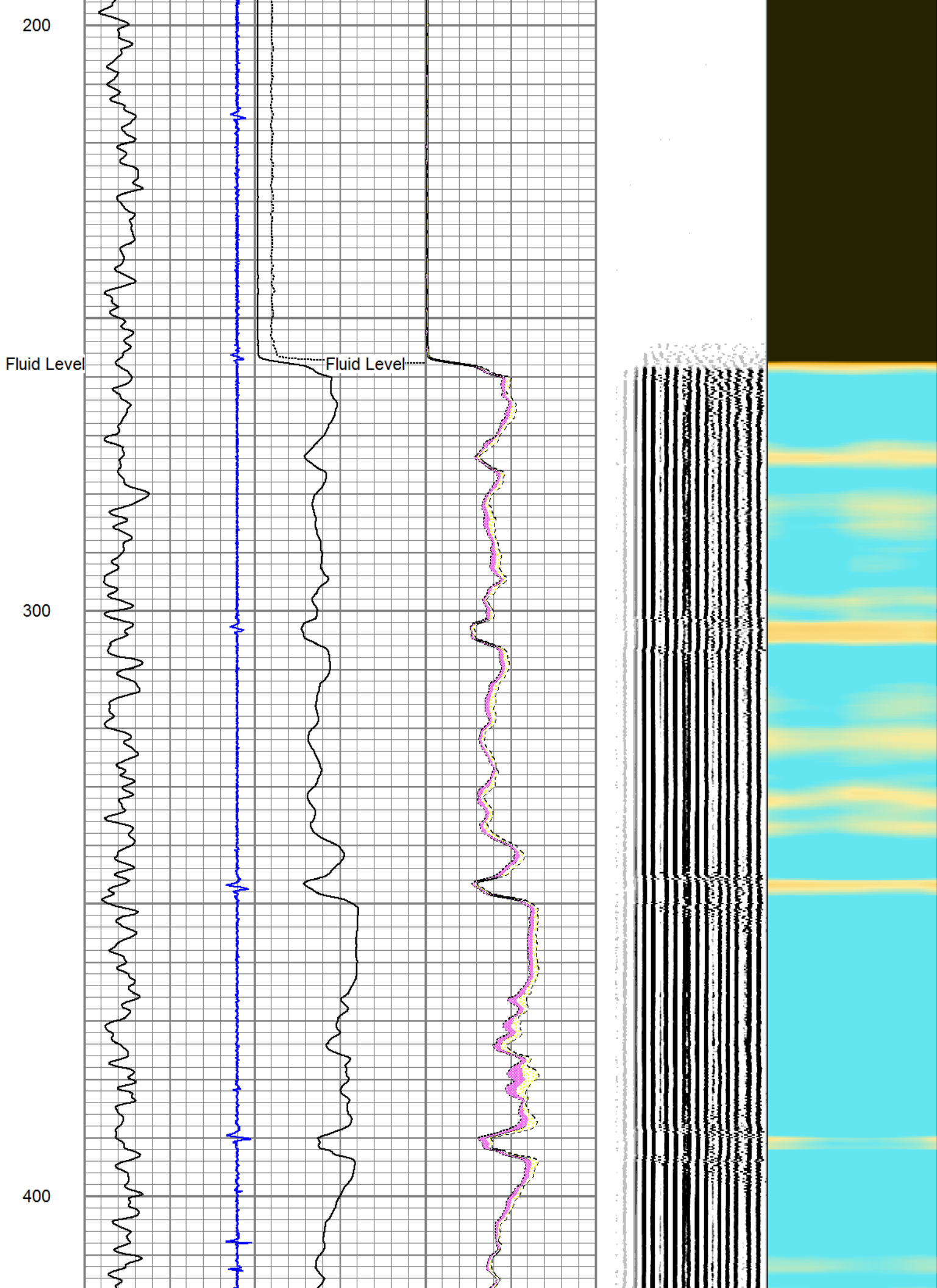
			CENT #2 -A (1)	2.83	2.75	20.00
IntTemp	14.66					
TEMP	13.64					
			RBT-RBT-C3 (130584) Probe Radii Bond Tool with Digital Telemetry	9.33	2.75	90.00
WVF3FT	11.41					
WVFCAL	11.41					
WVFS1	11.41					
WVFS2	11.41					
WVFS3	11.41					
WVFS4	11.41					
WVFS5	11.41					
WVFS6	11.41					
WVFS7	11.41					
WVFS8	11.41					
WVF5FT	10.41					
			CENT-A (1)	2.83	2.75	20.00
CCL	3.92					
			GR-probe 2.75 (51013) probe Digital CCL Gamma	4.33	2.75	100.00
GR	1.13					
Dataset: 13699.db: field/well/run1/pass2 Total Length: 19.32 ft Total Weight: 230.00 lb O.D. 2.75 in						

Database File: 13699.db
 Dataset Pathname: pass2.1
 Presentation Format: scbl02
 Dataset Creation: Fri Oct 24 09:05:25 2014 by Calc 0
 Charted by: Depth in Feet scaled 1:240

-9	CCL	1	0	AMP (mV)	100	0	AMPAVG	150	200	VDL	1200	1	SECTOR MAP	8
0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPMAX	150				10		60
						0	AMPMIN	150						

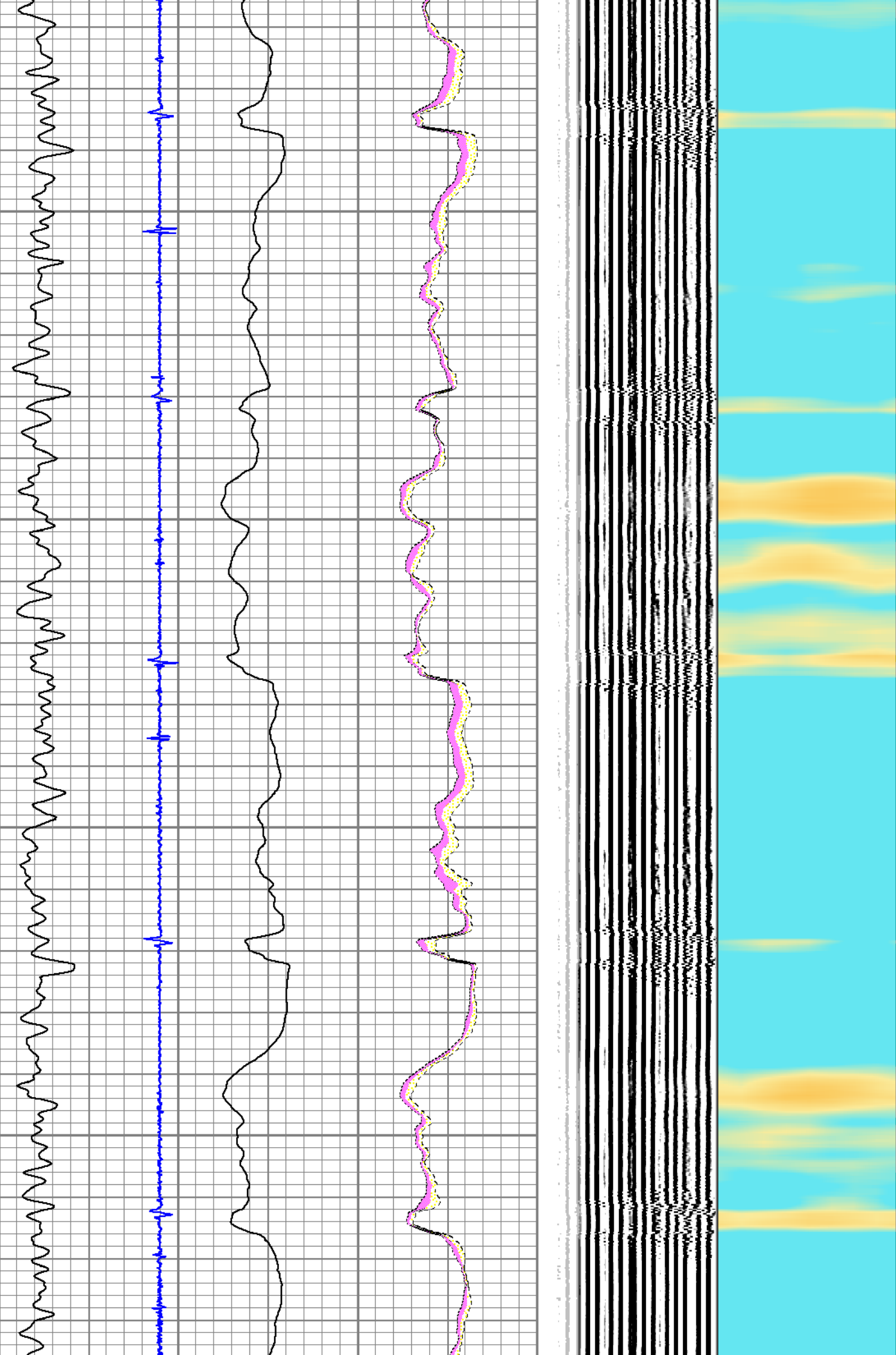
100





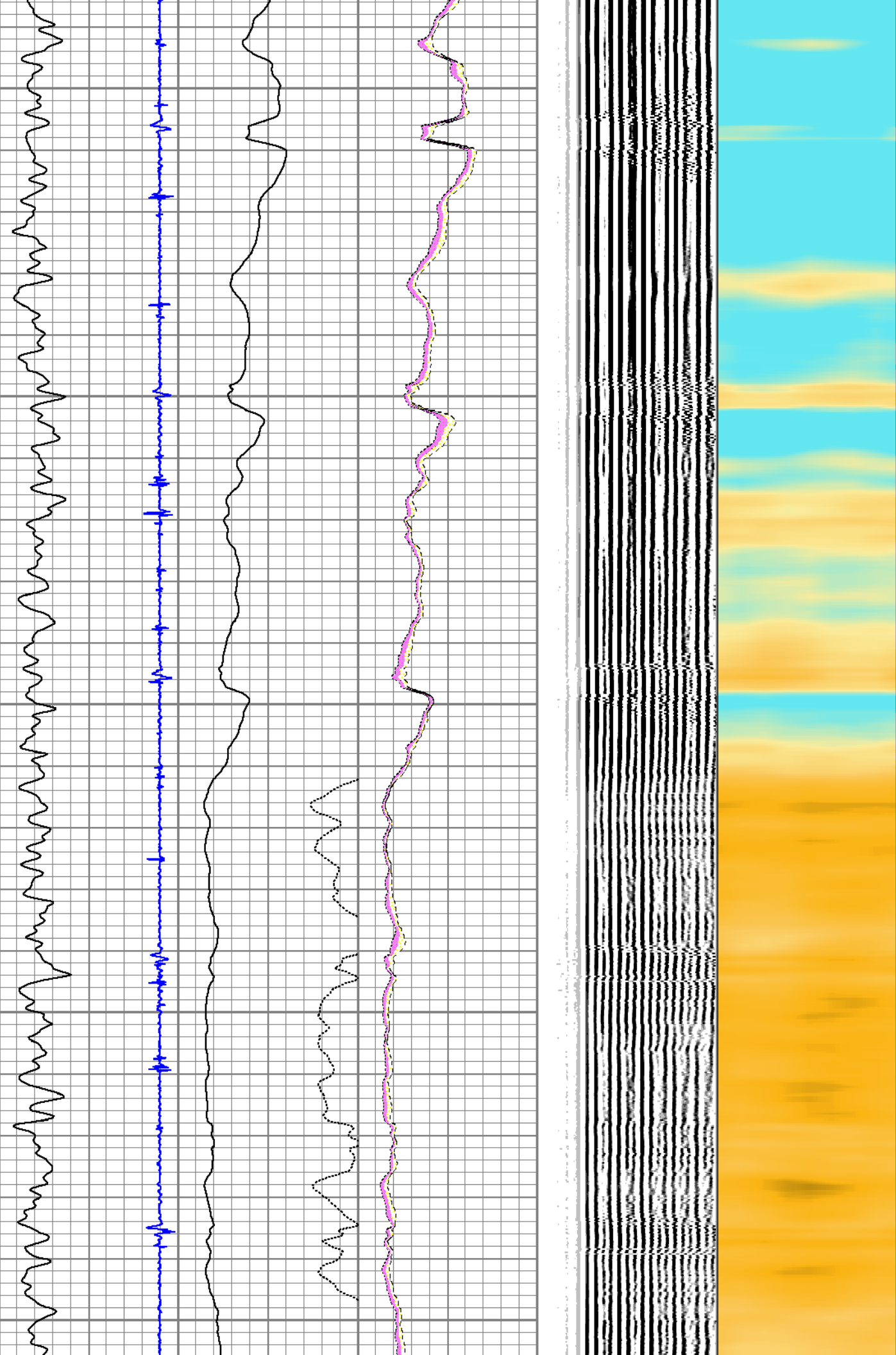
500

600



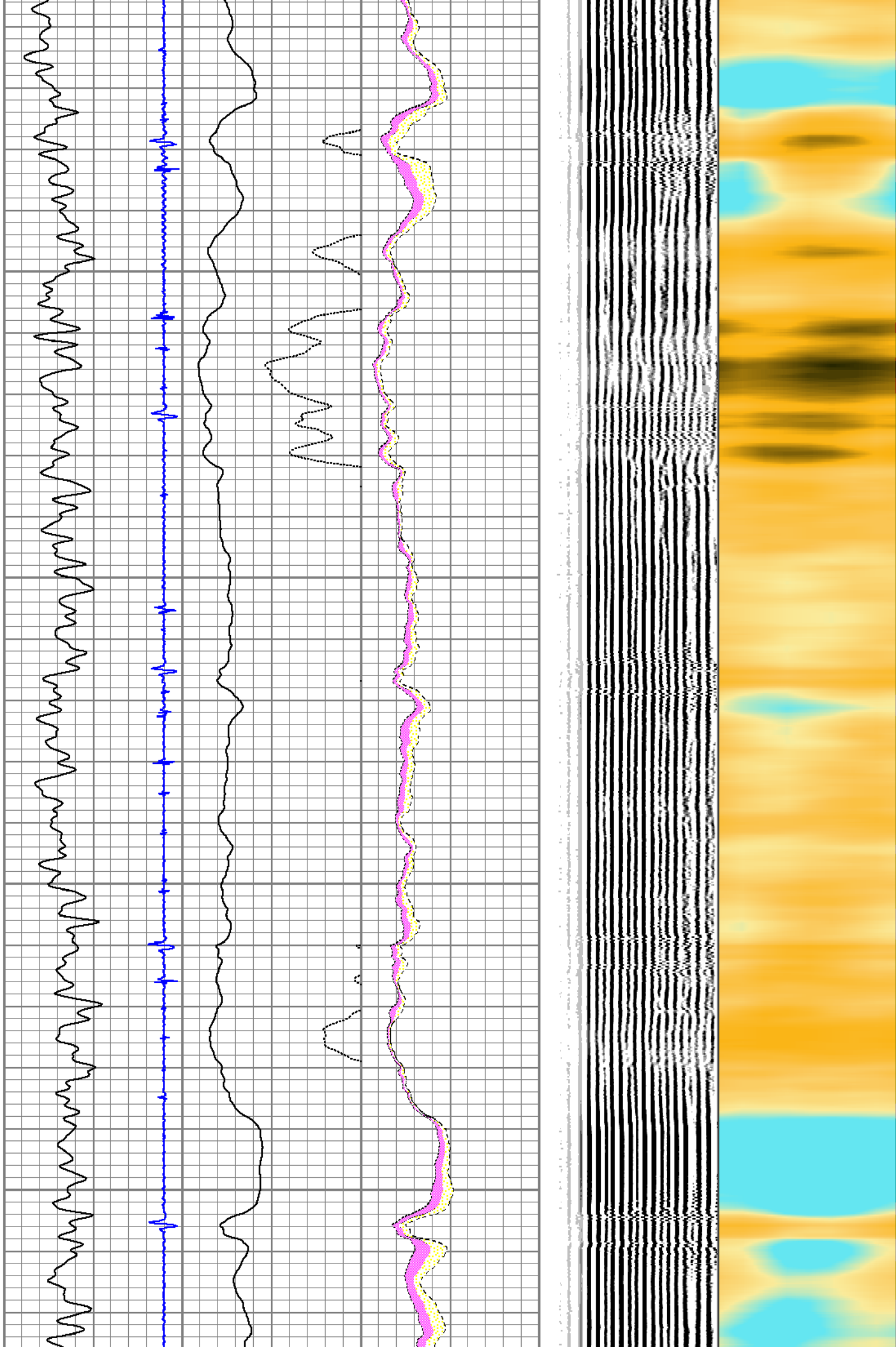
700

800



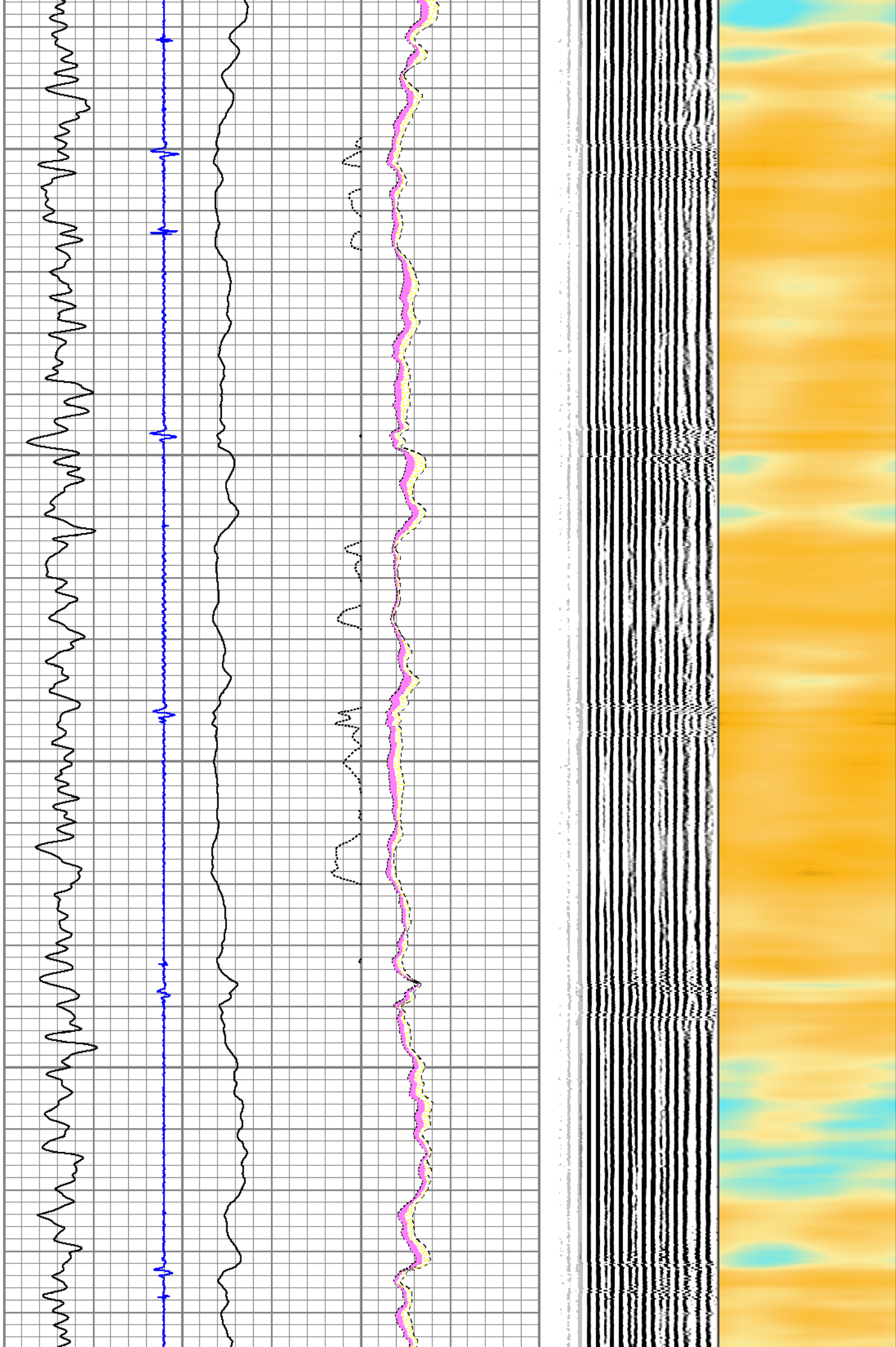
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1000



1100

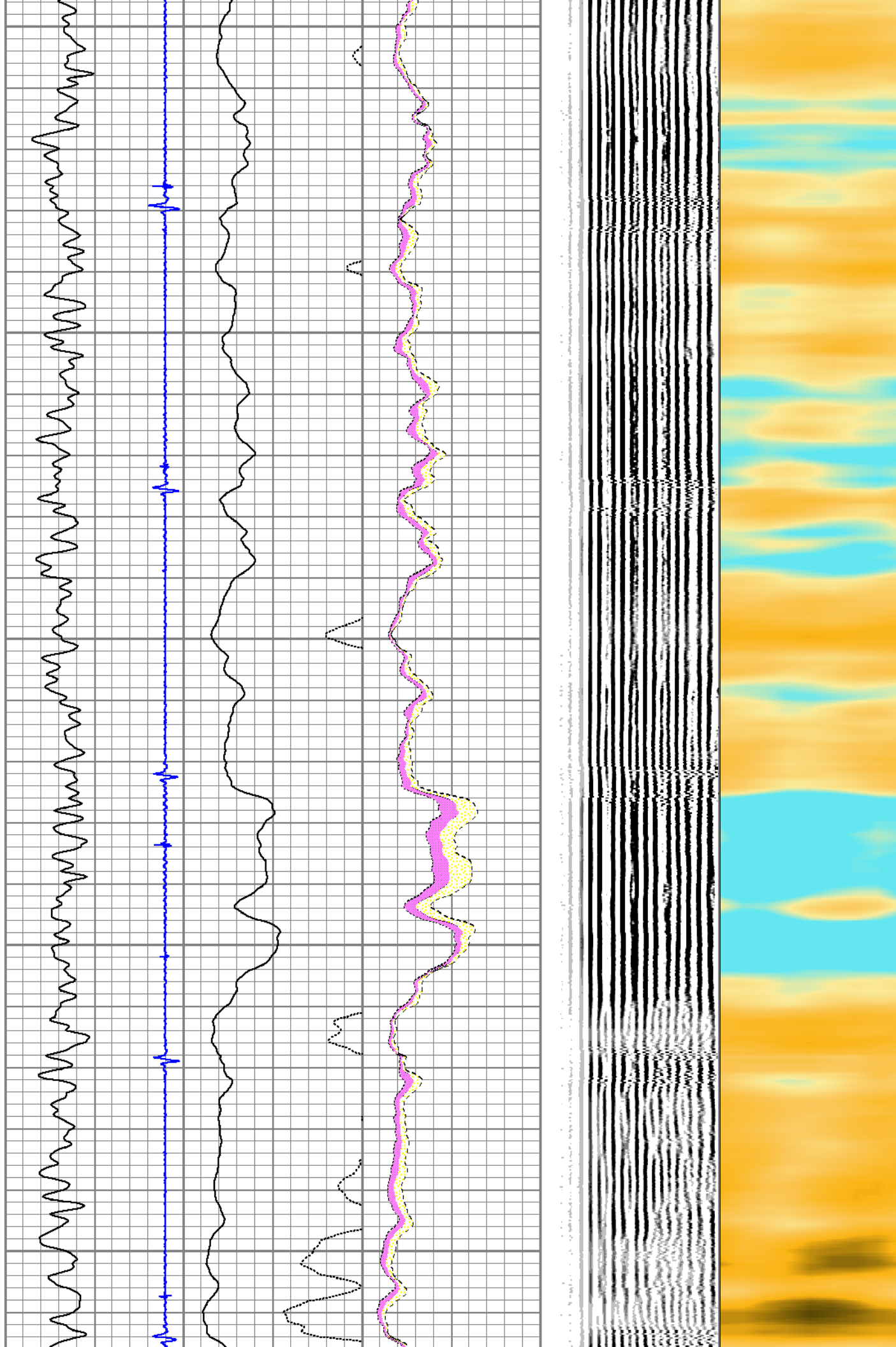
1200



1300

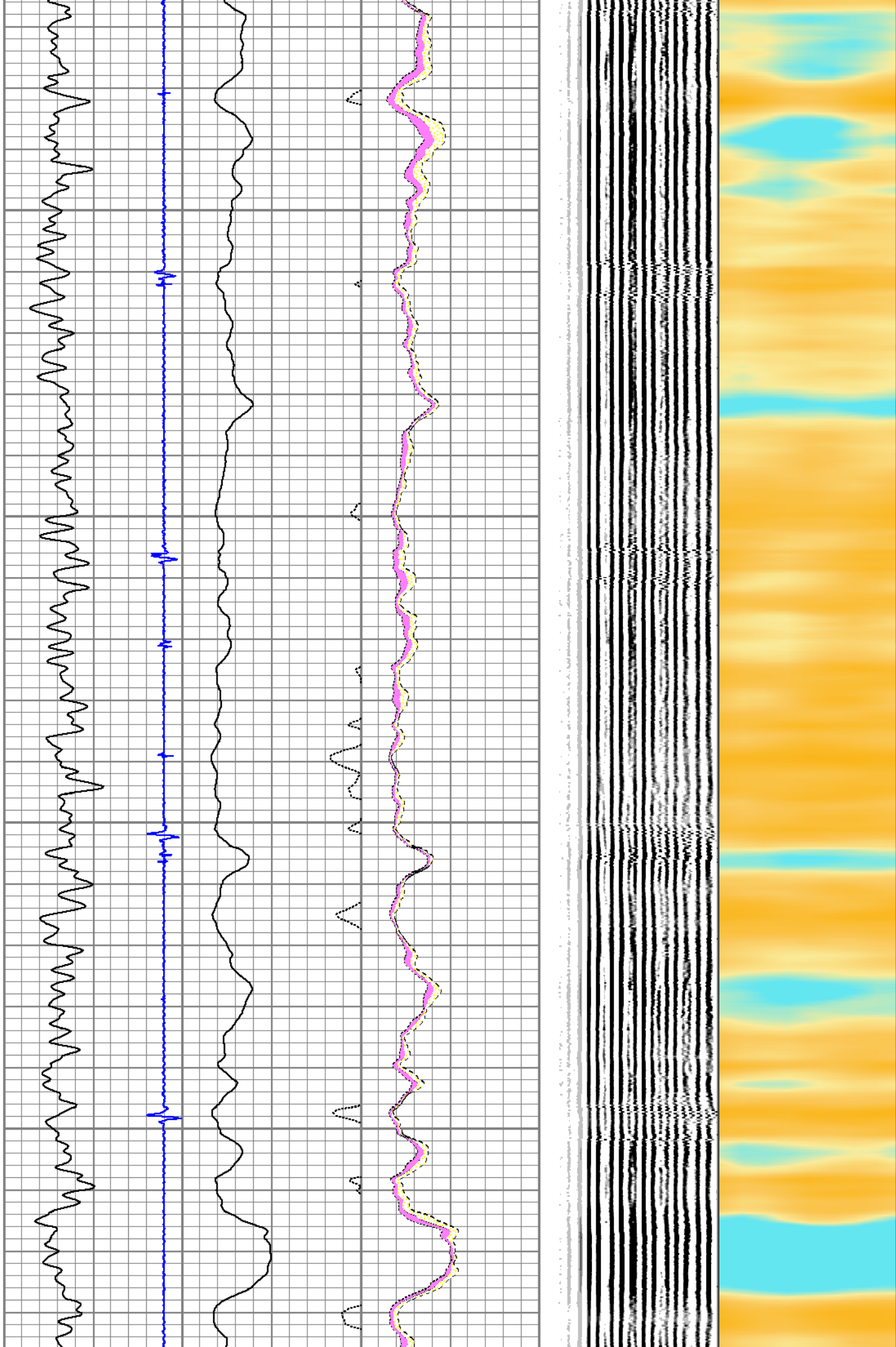
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1500



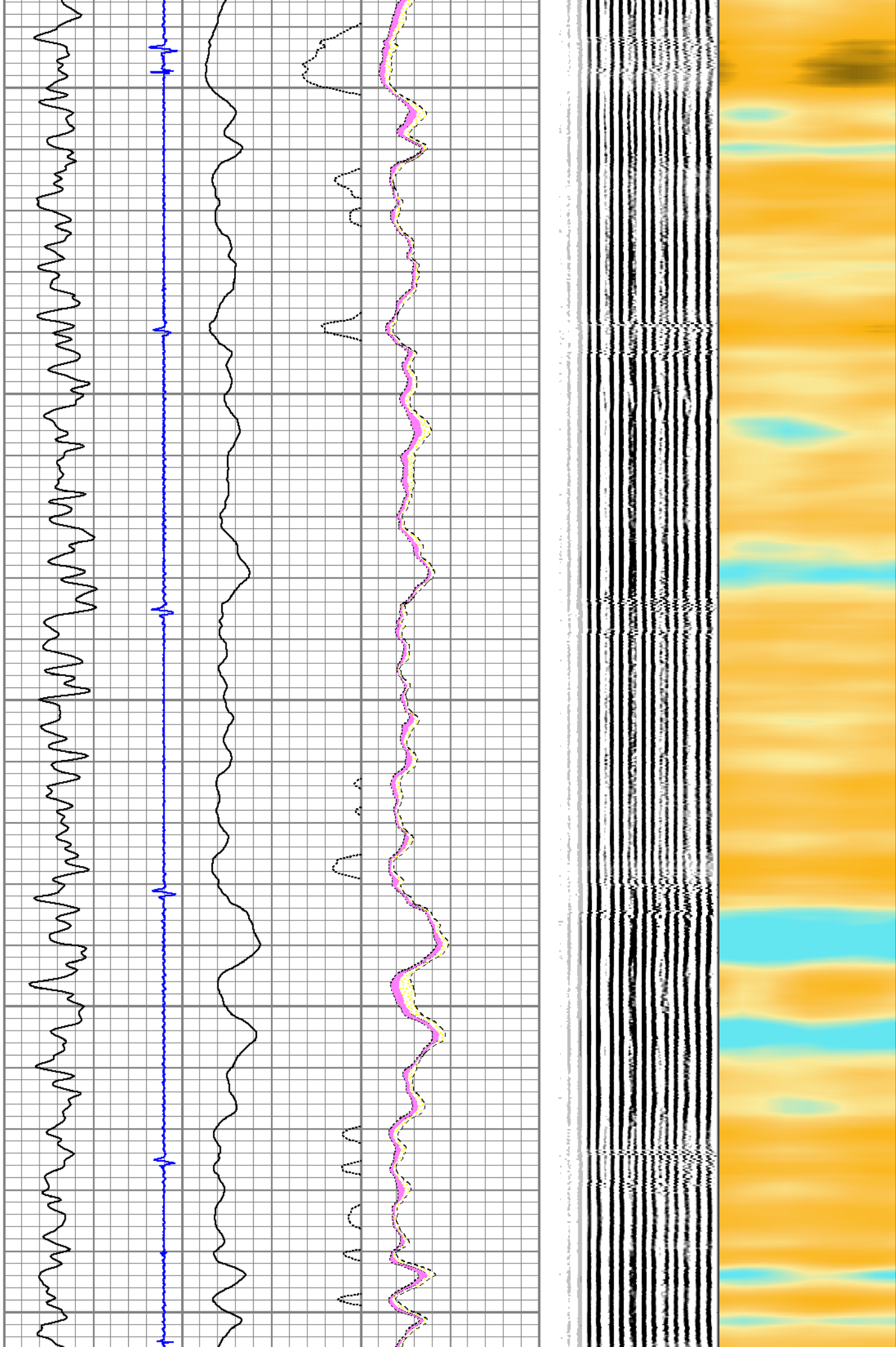
1600

1700



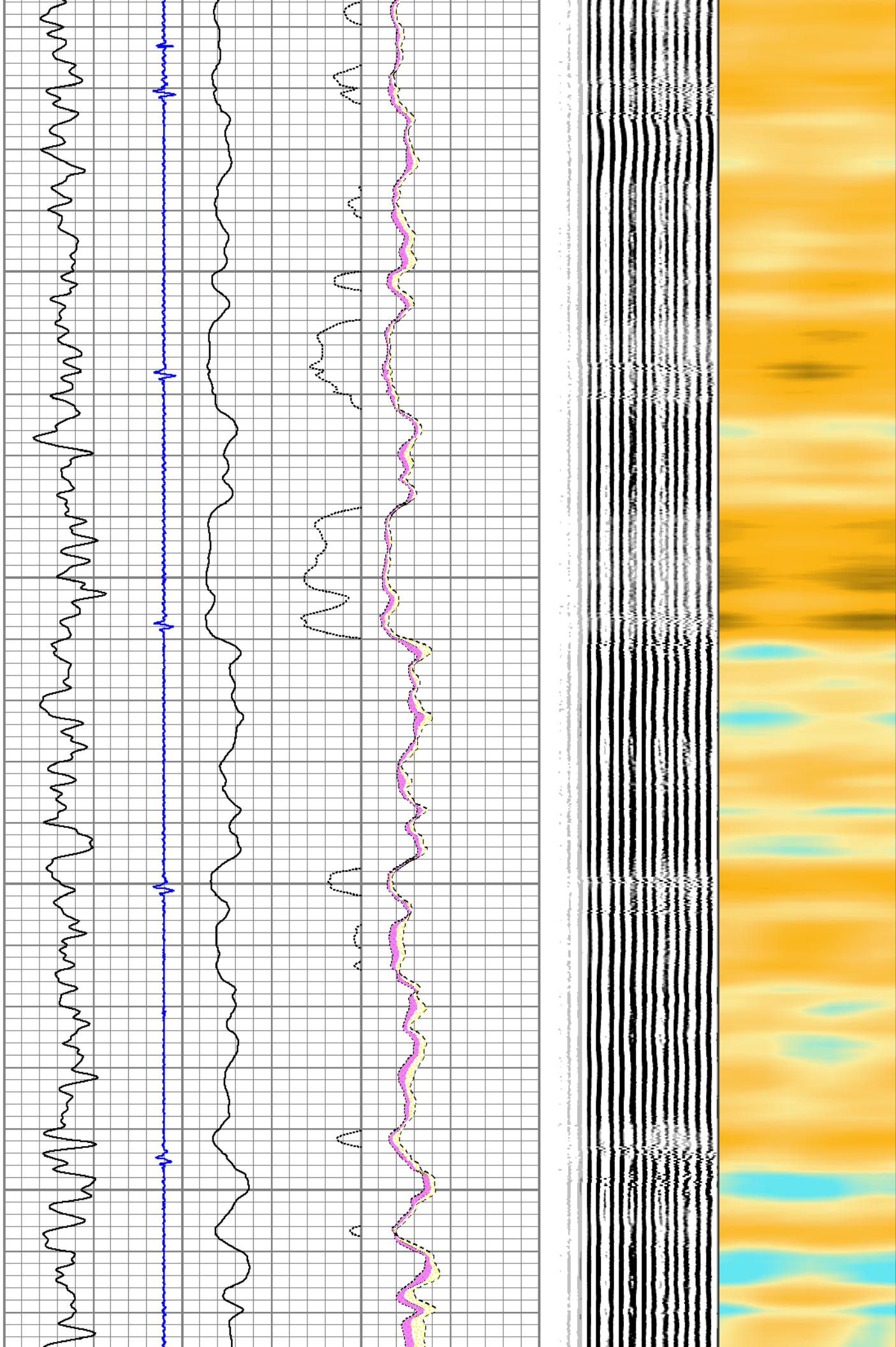
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1900



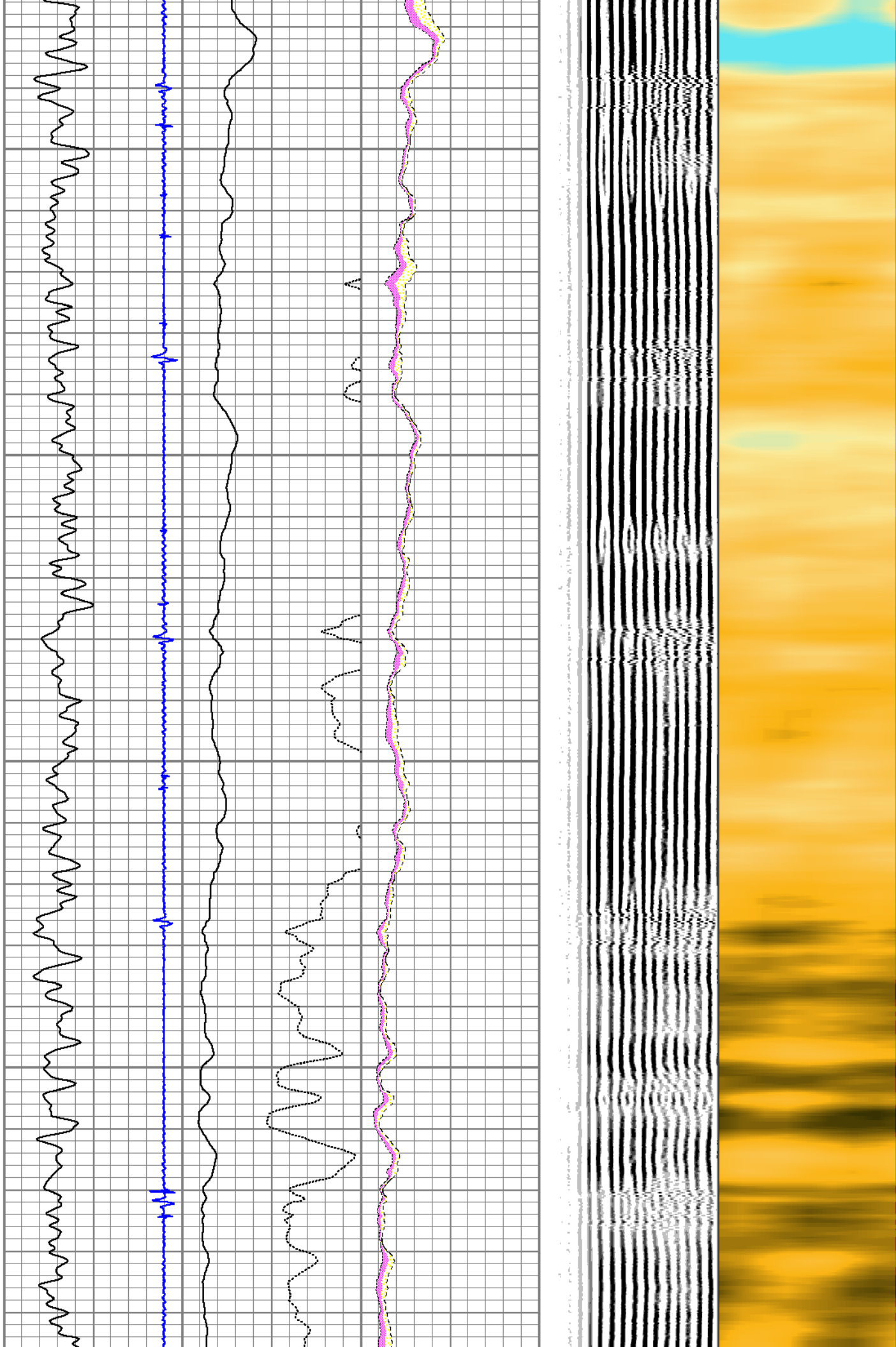
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2100



2200

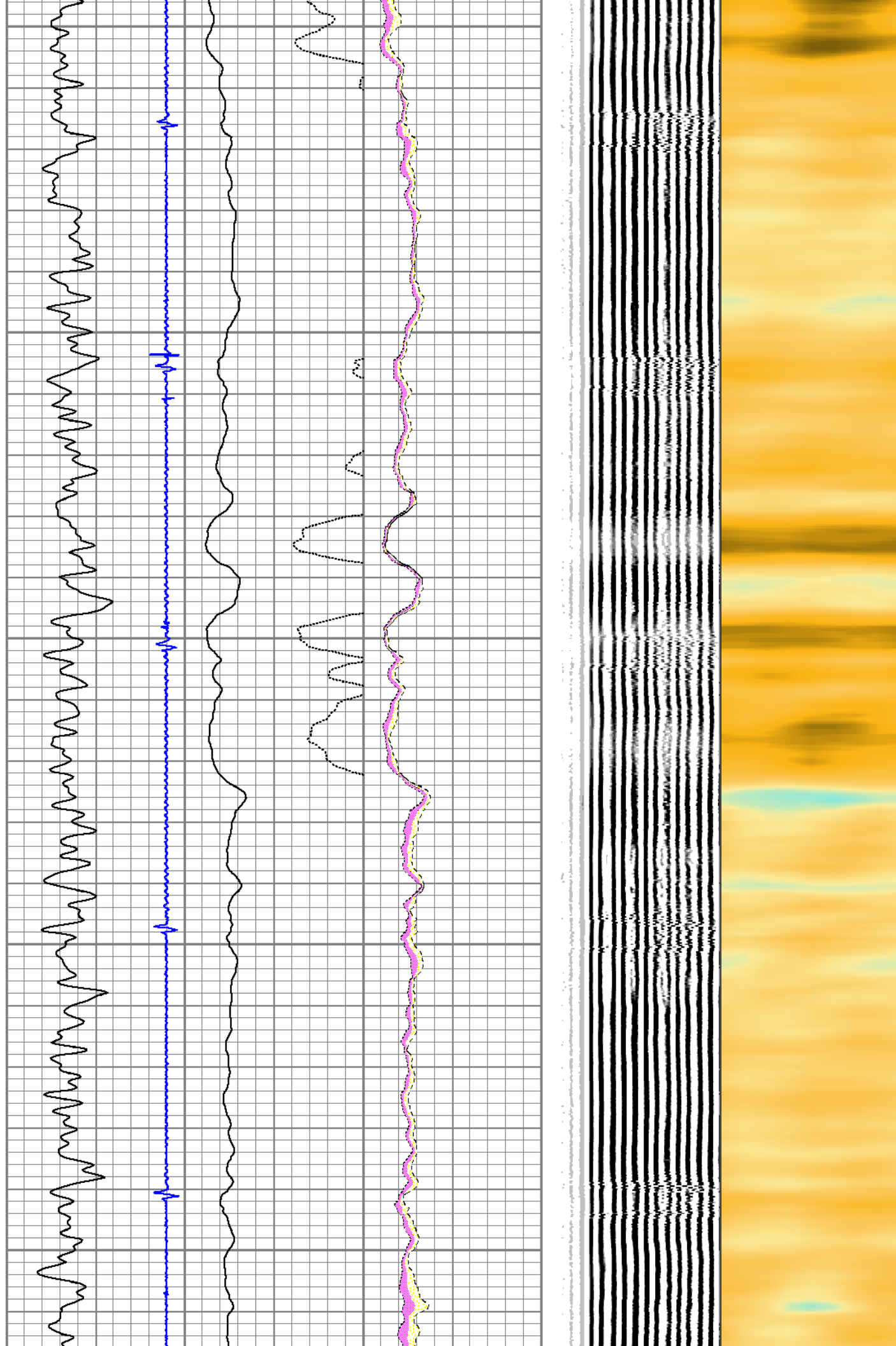
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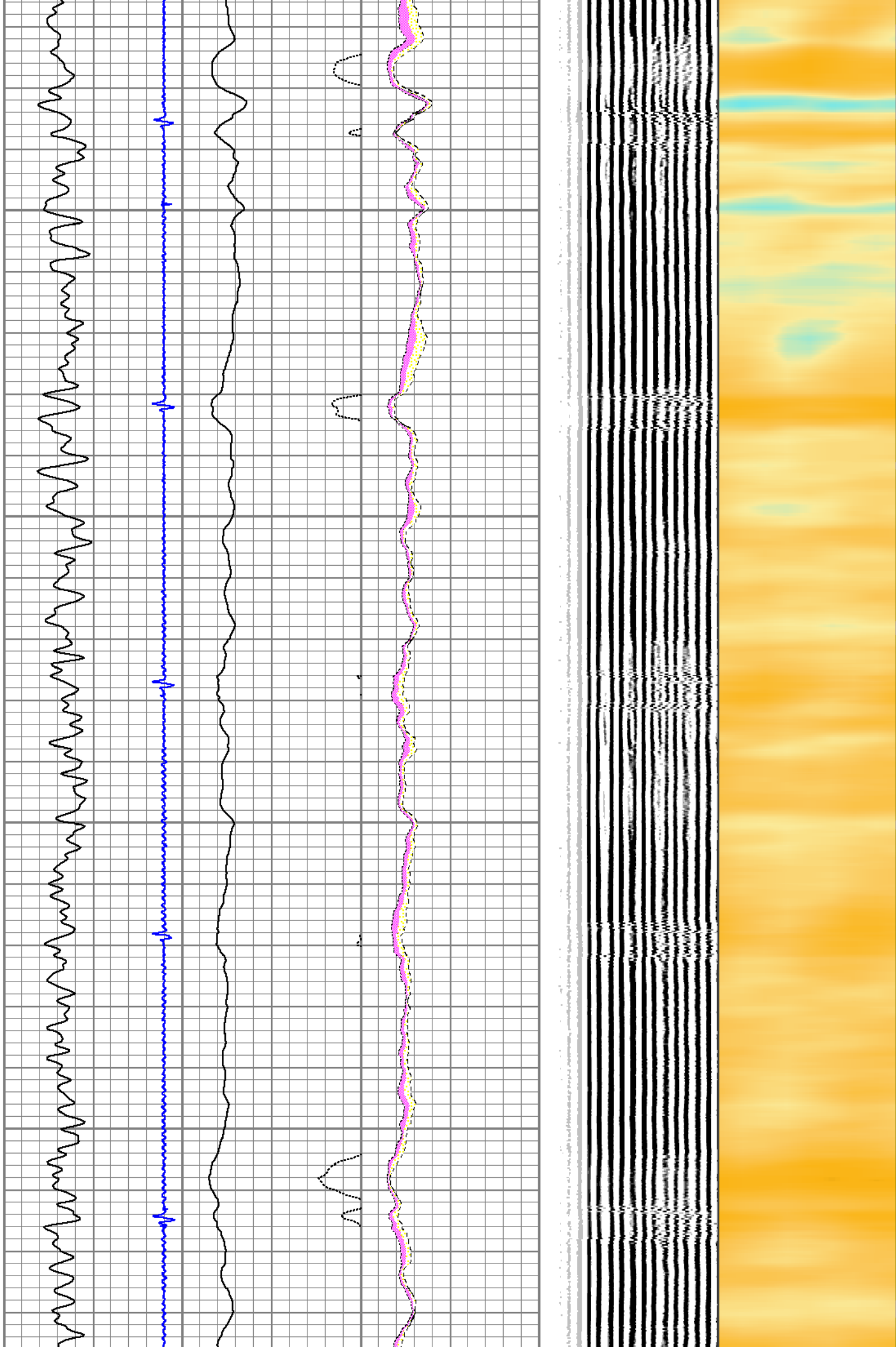
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2600

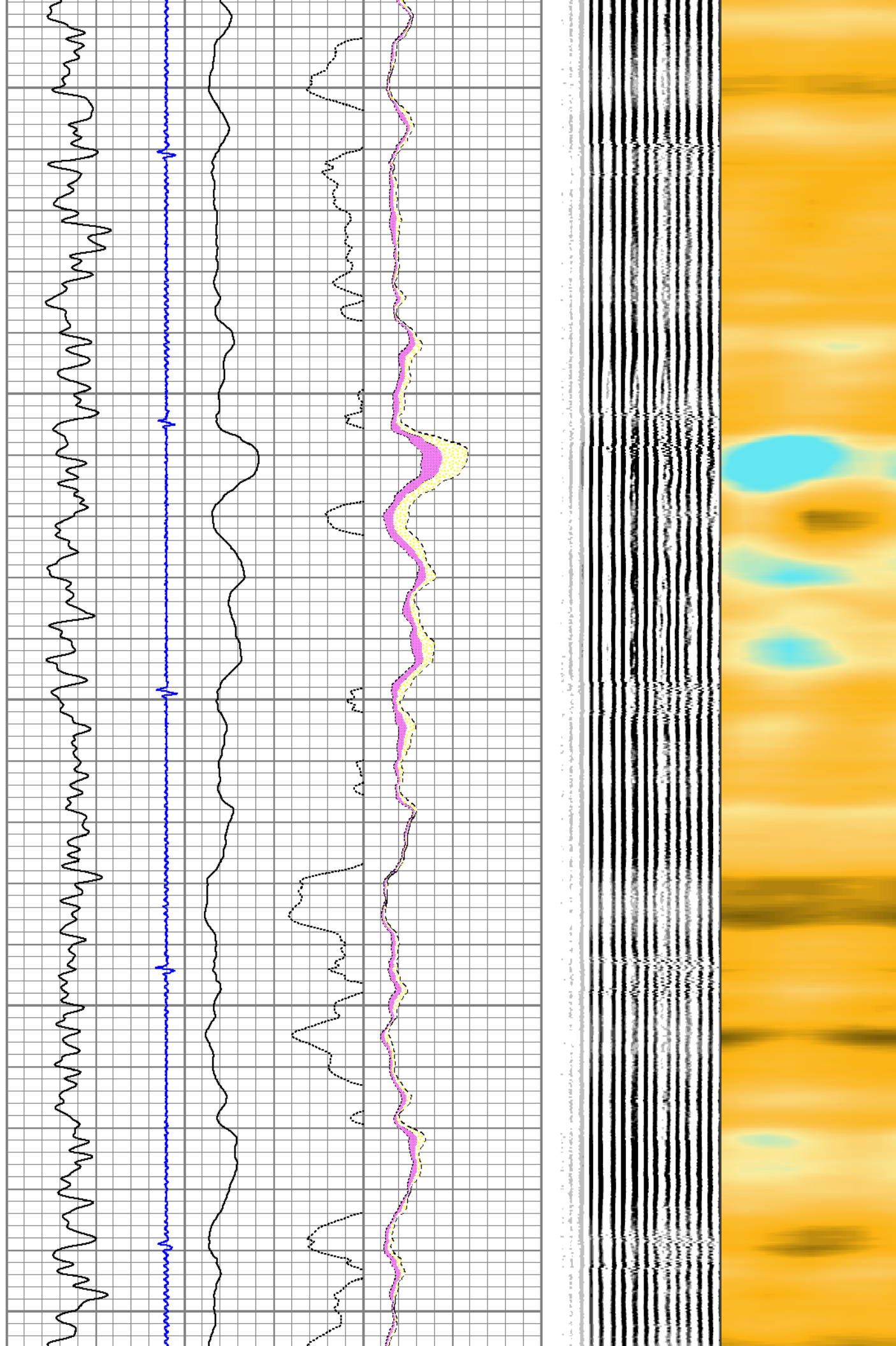


2700

2800

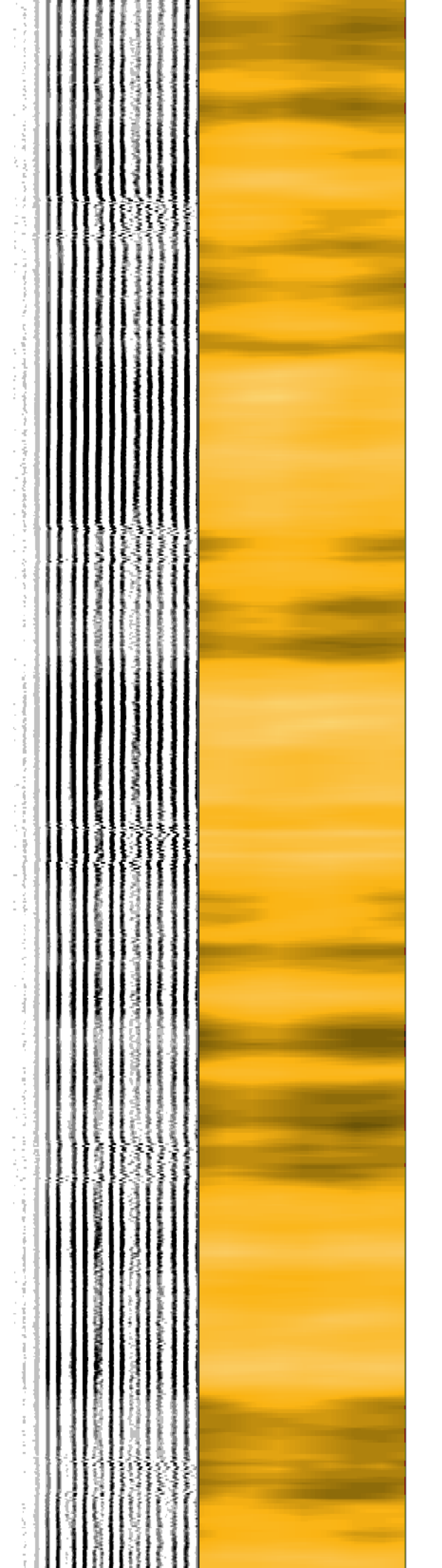
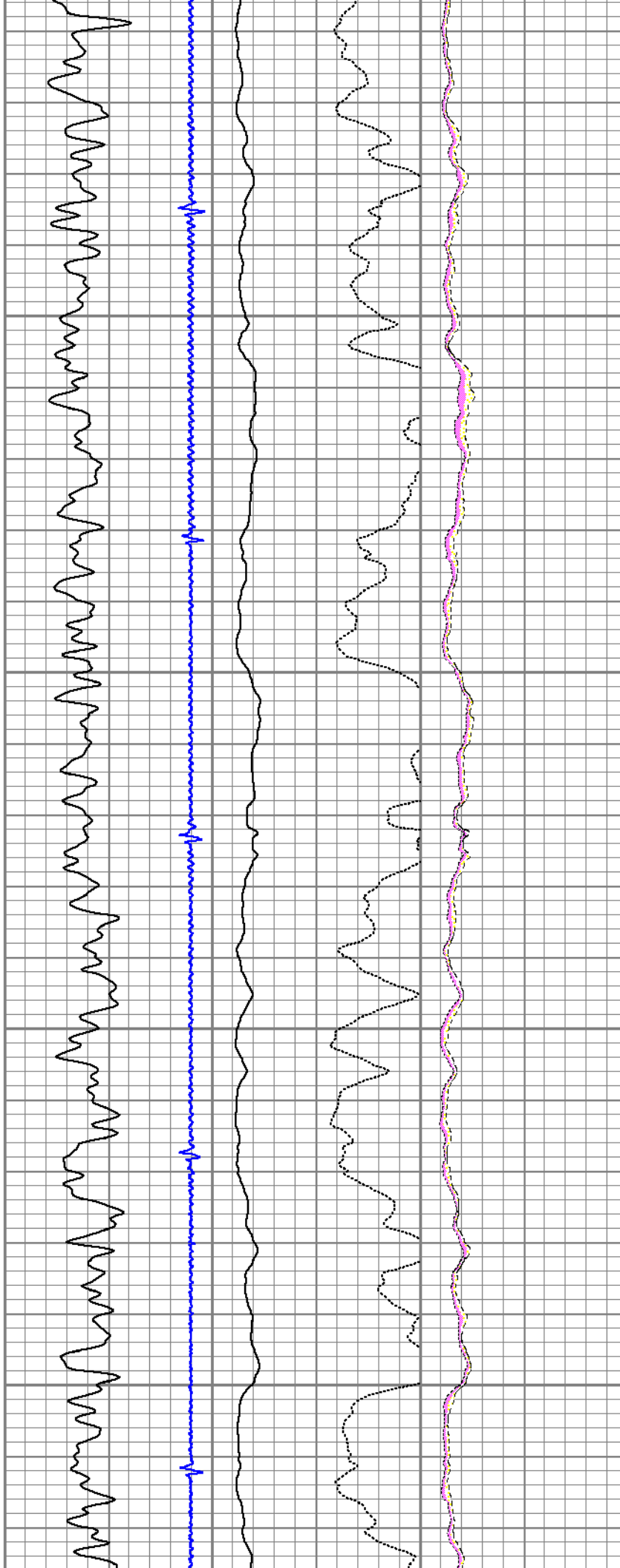


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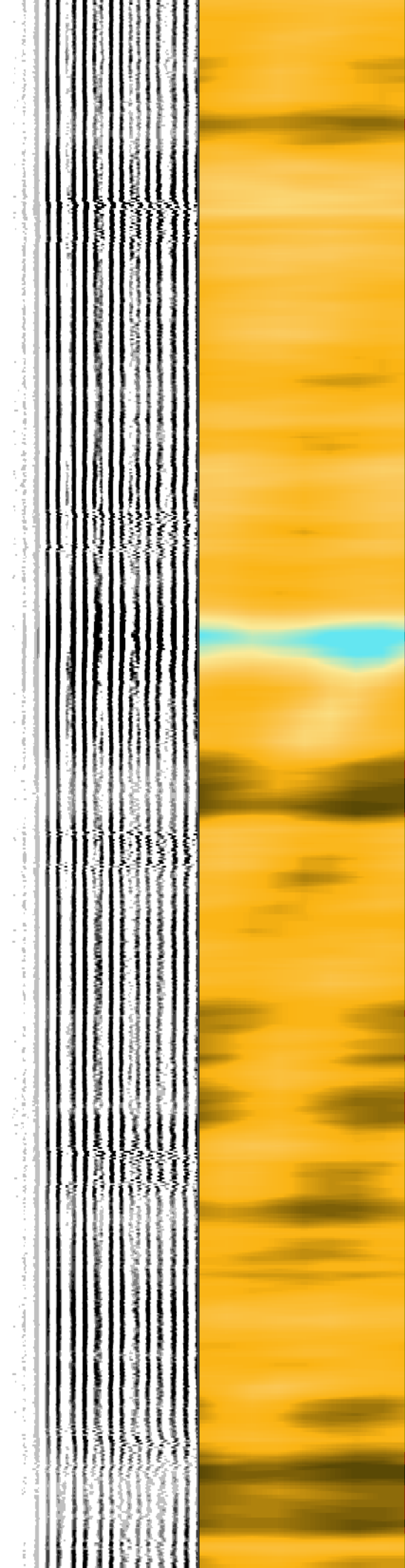
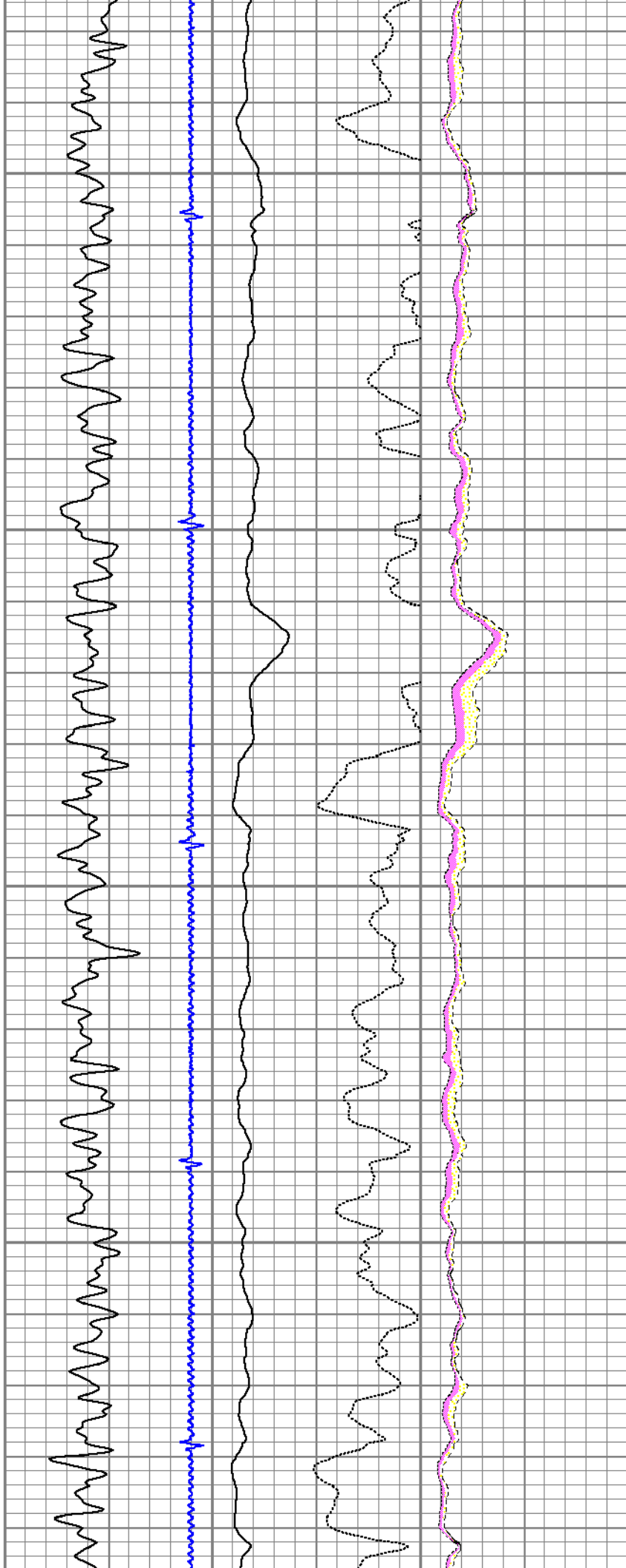
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3200



3300

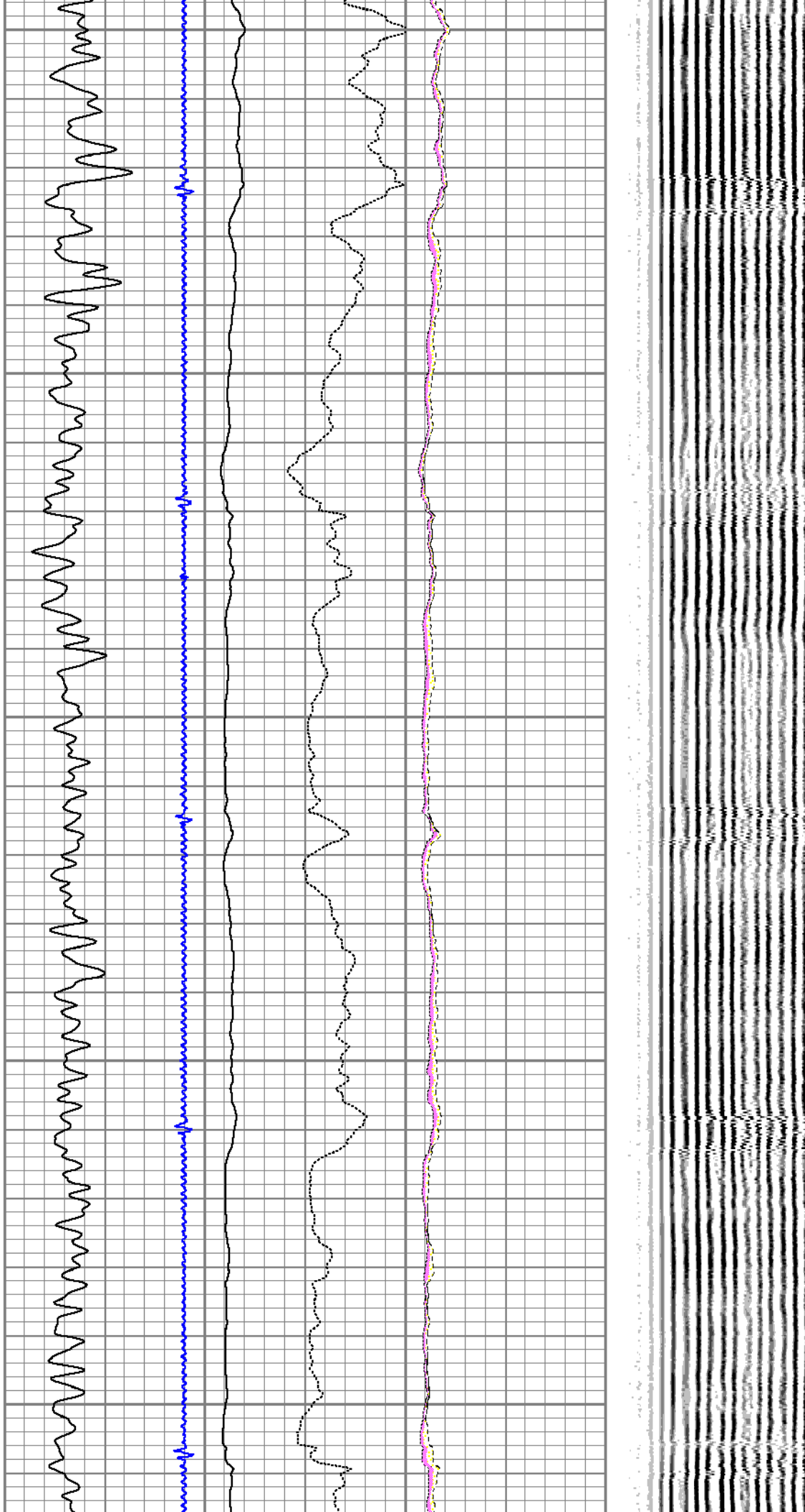
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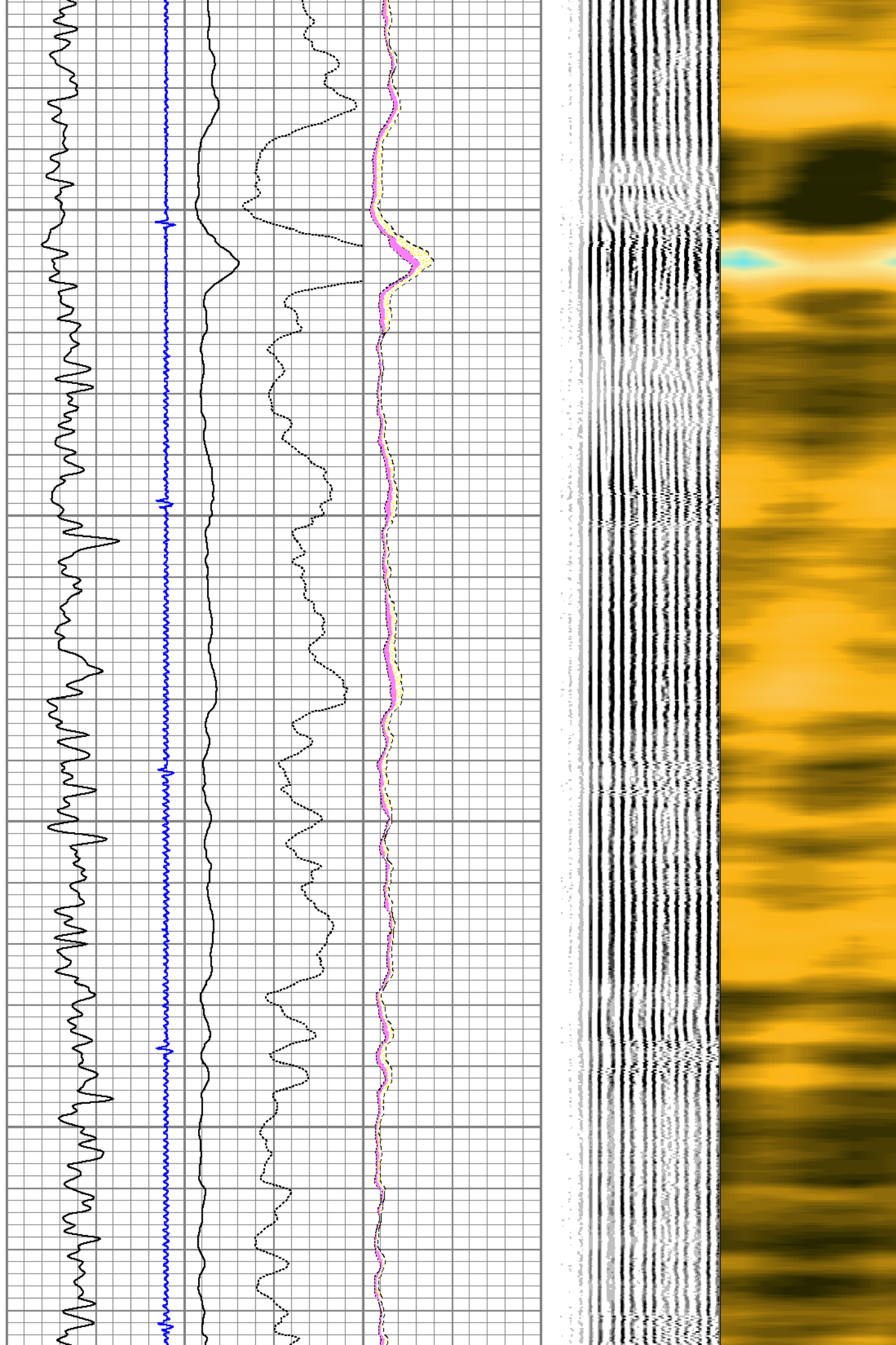
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3600

3700

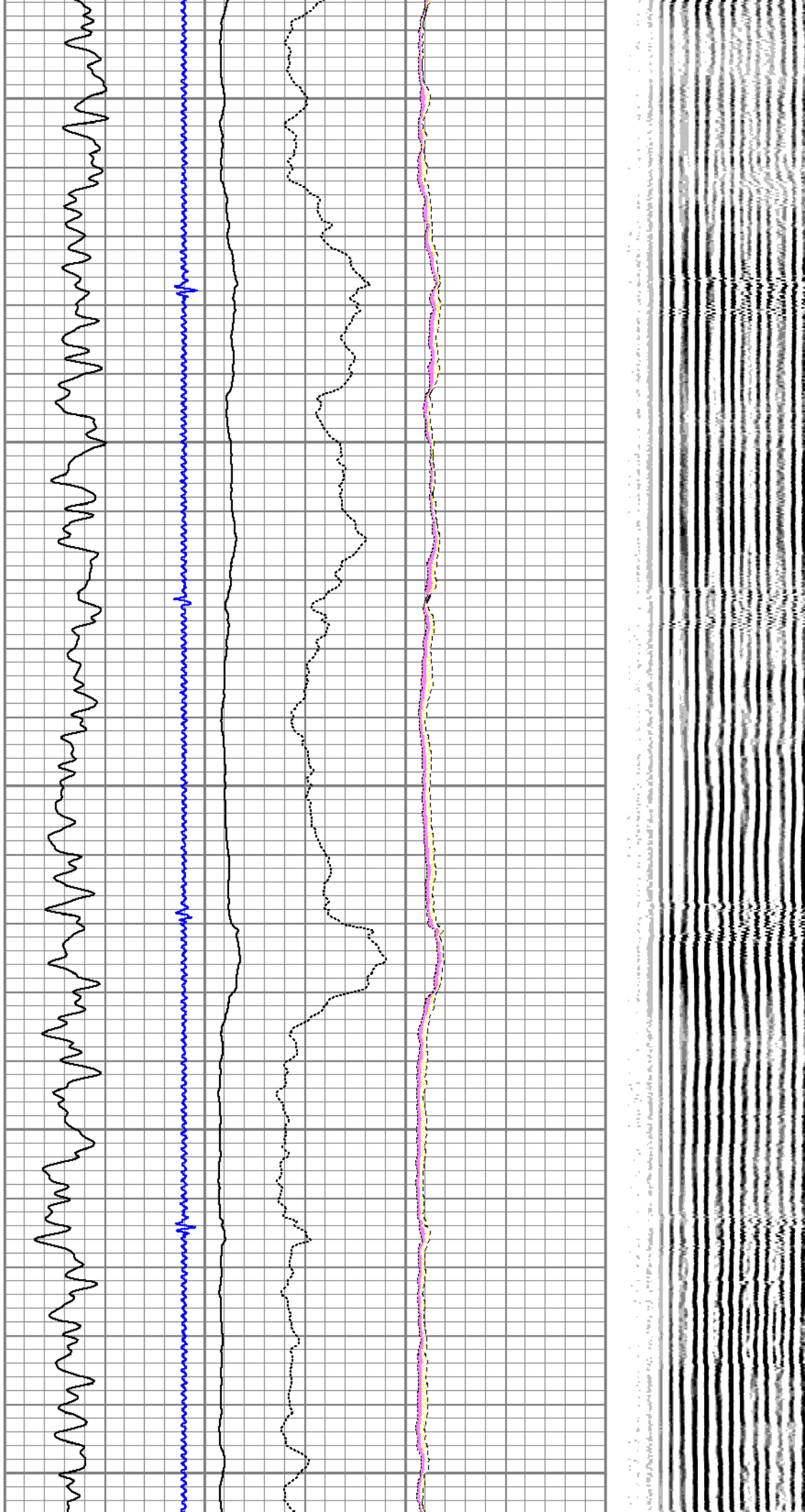


3900



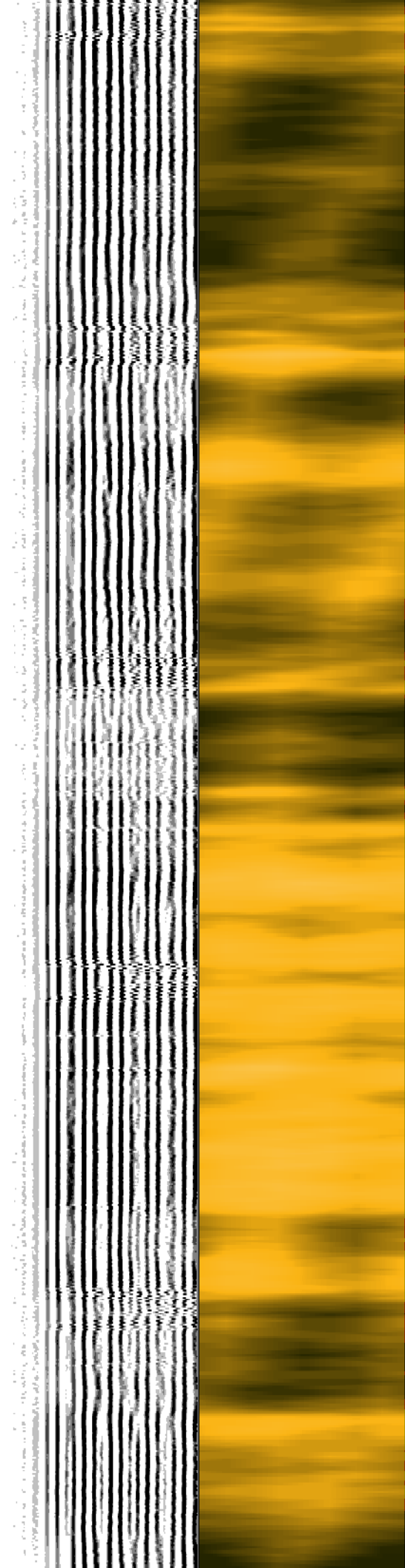
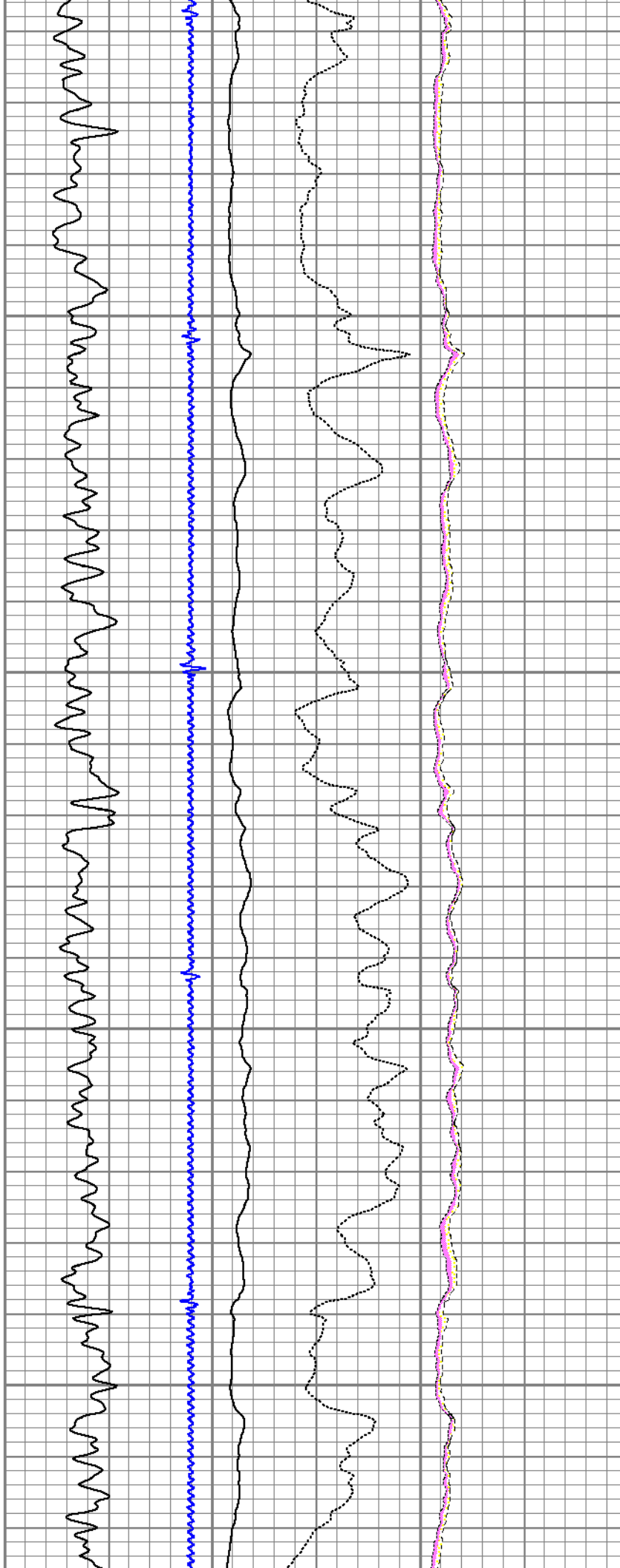
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4100



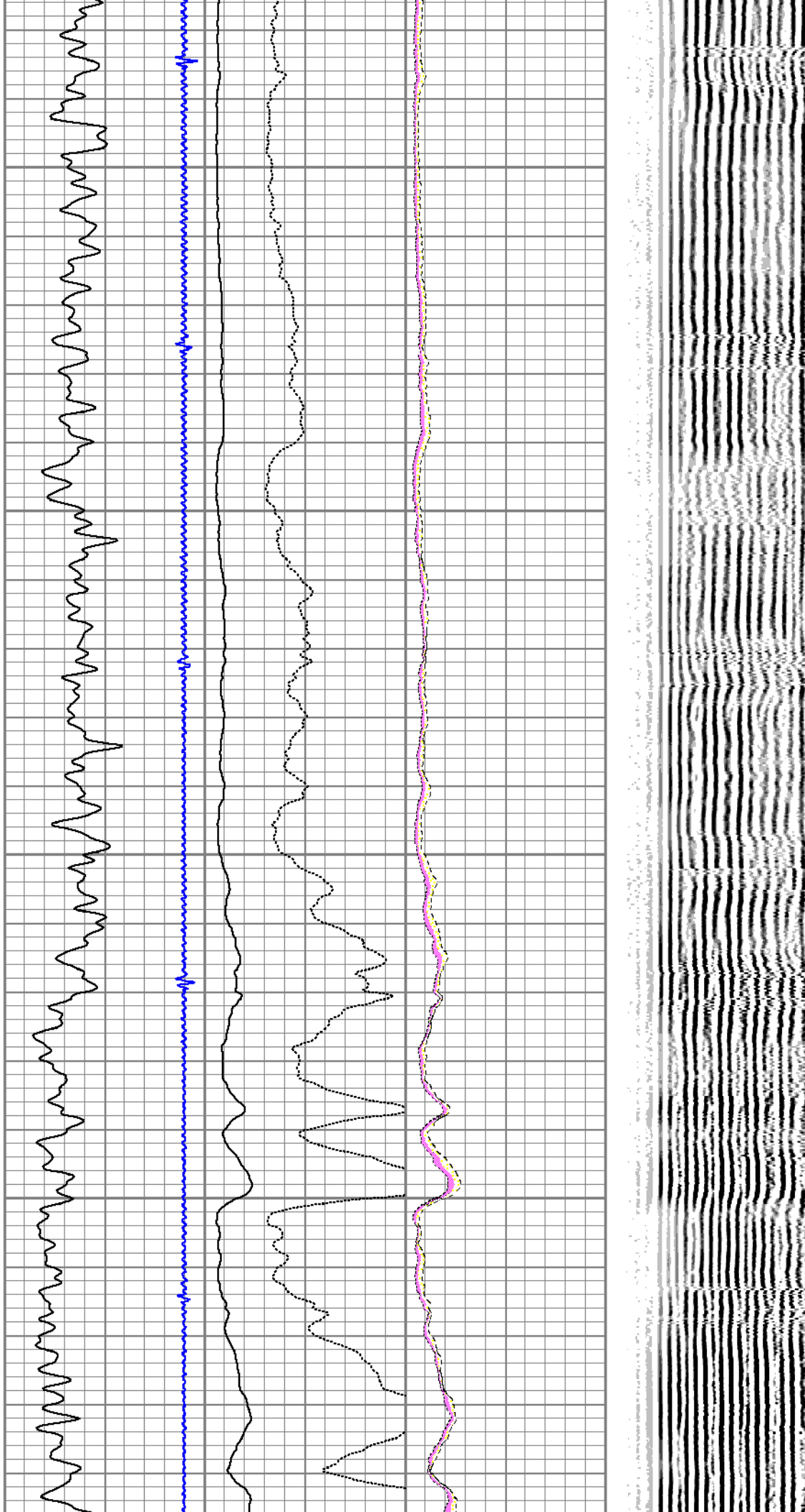
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4300



4400

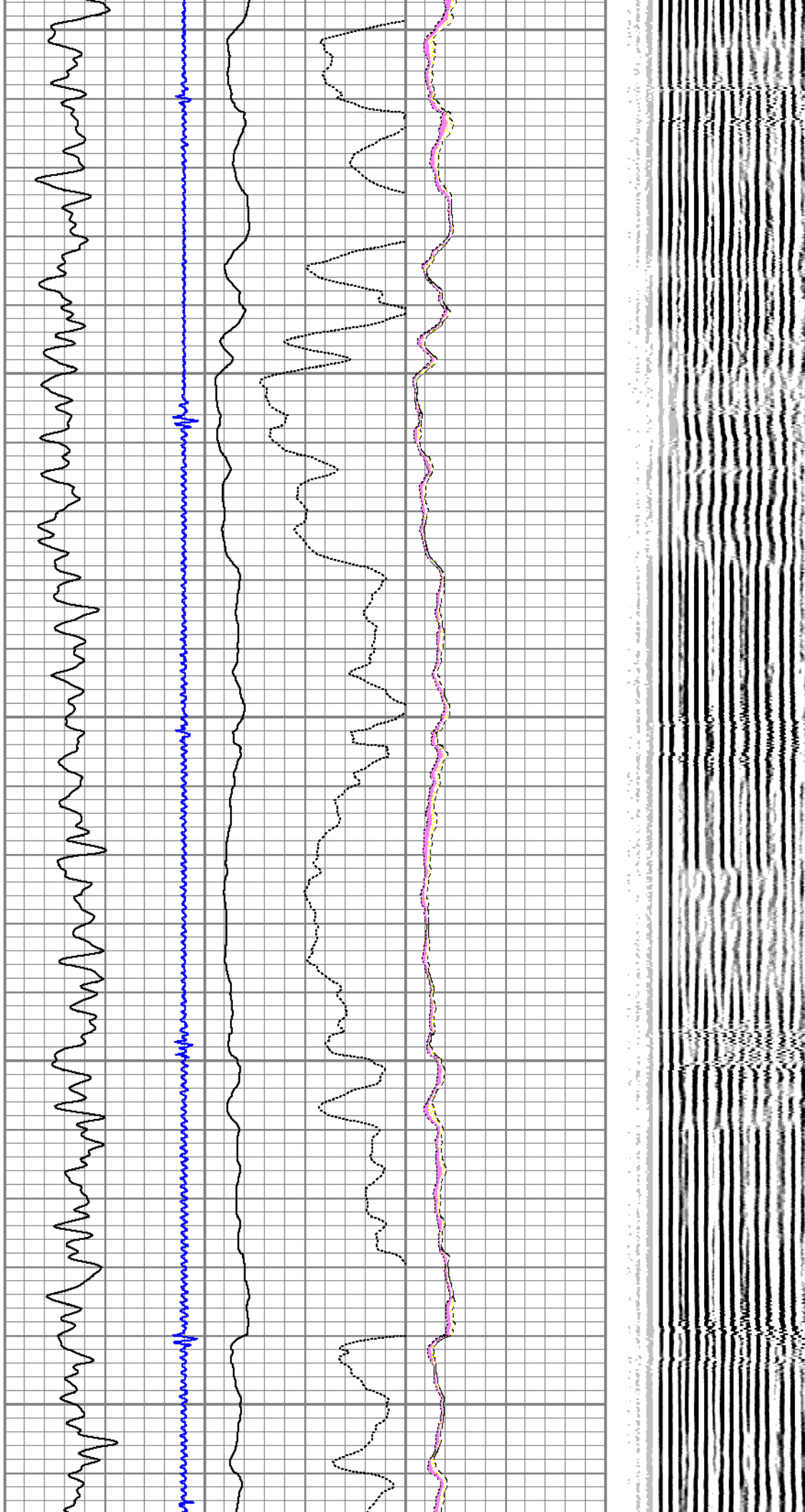
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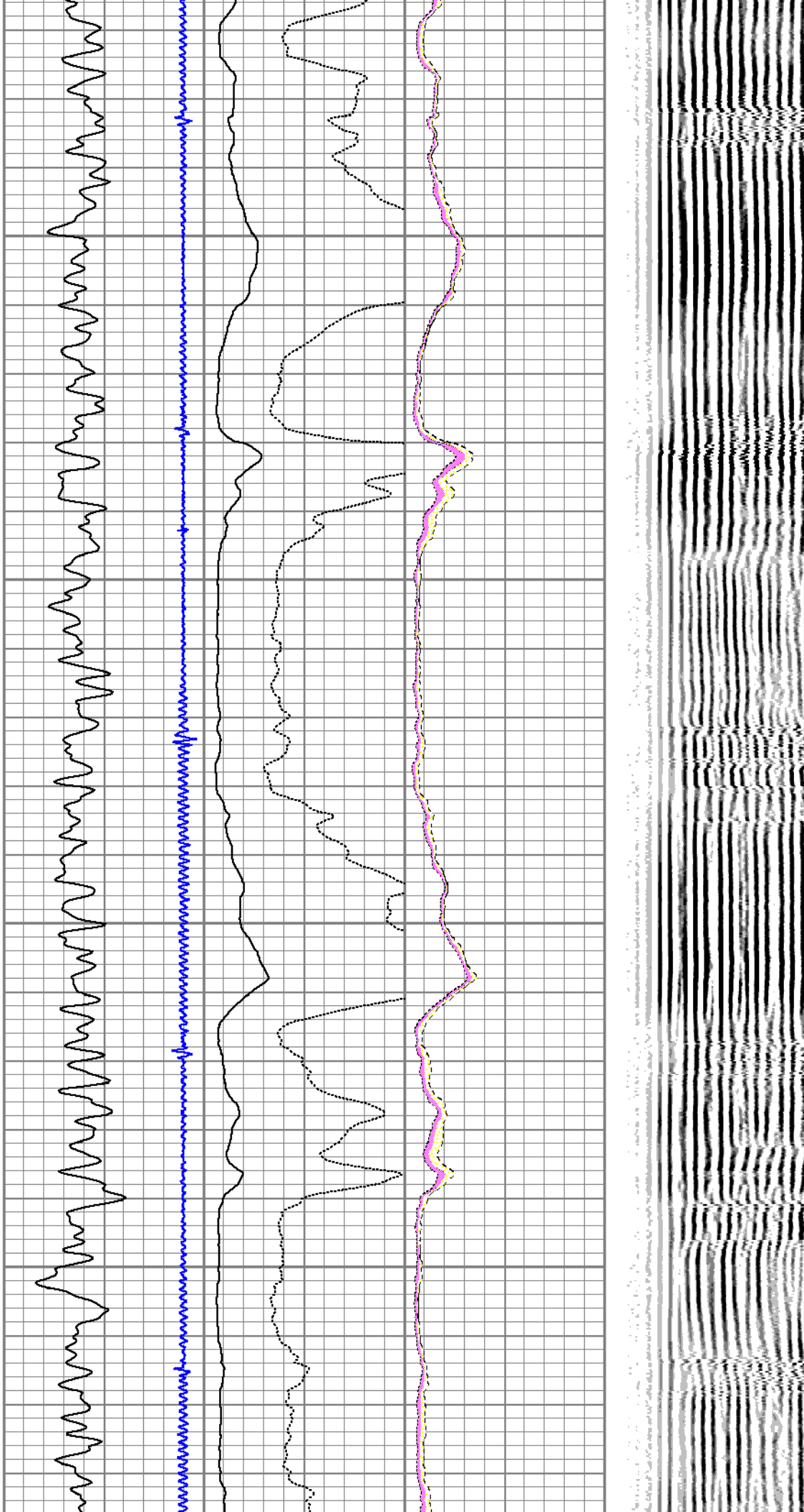
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4800



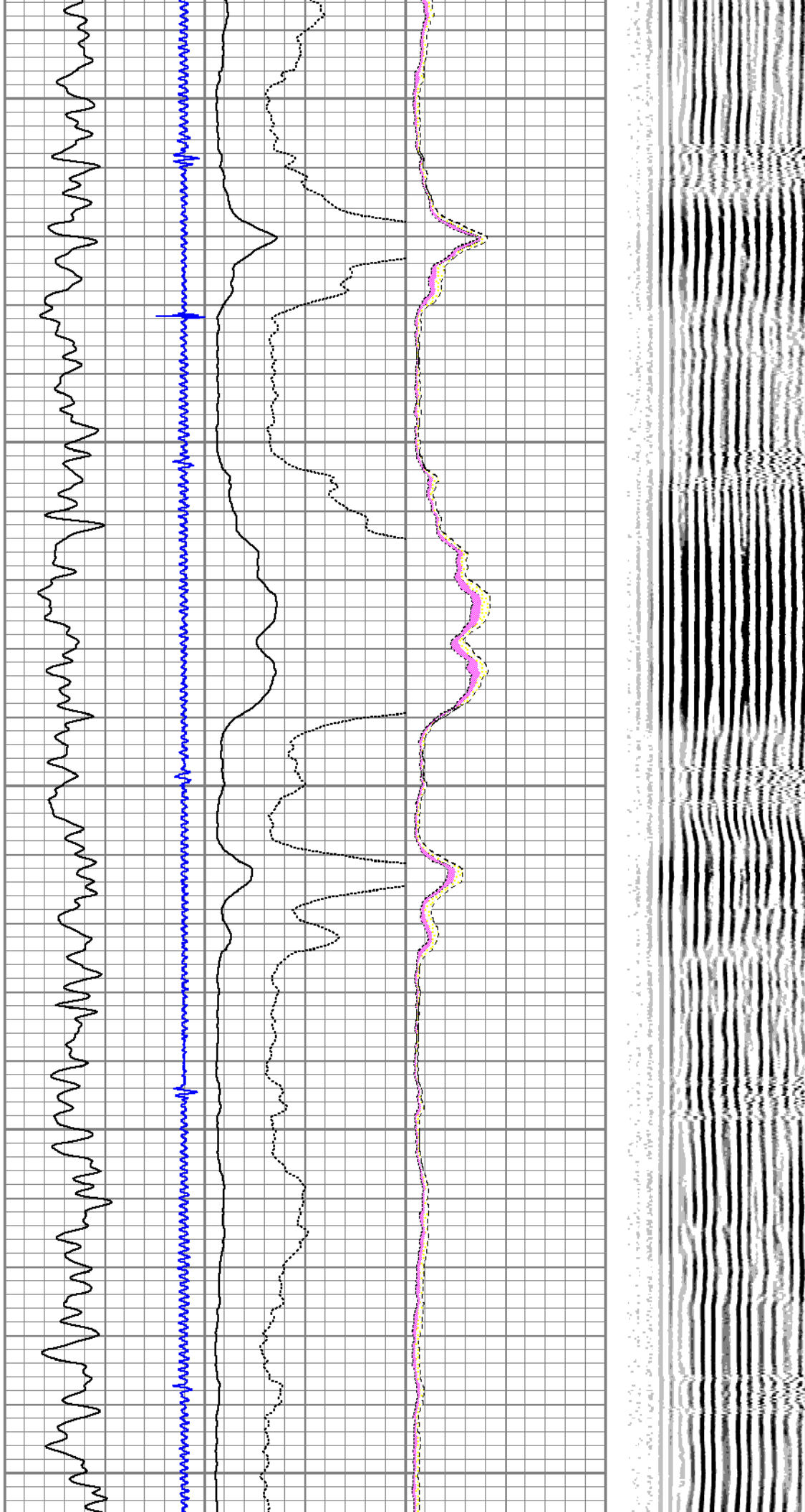
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5000



5100

5200



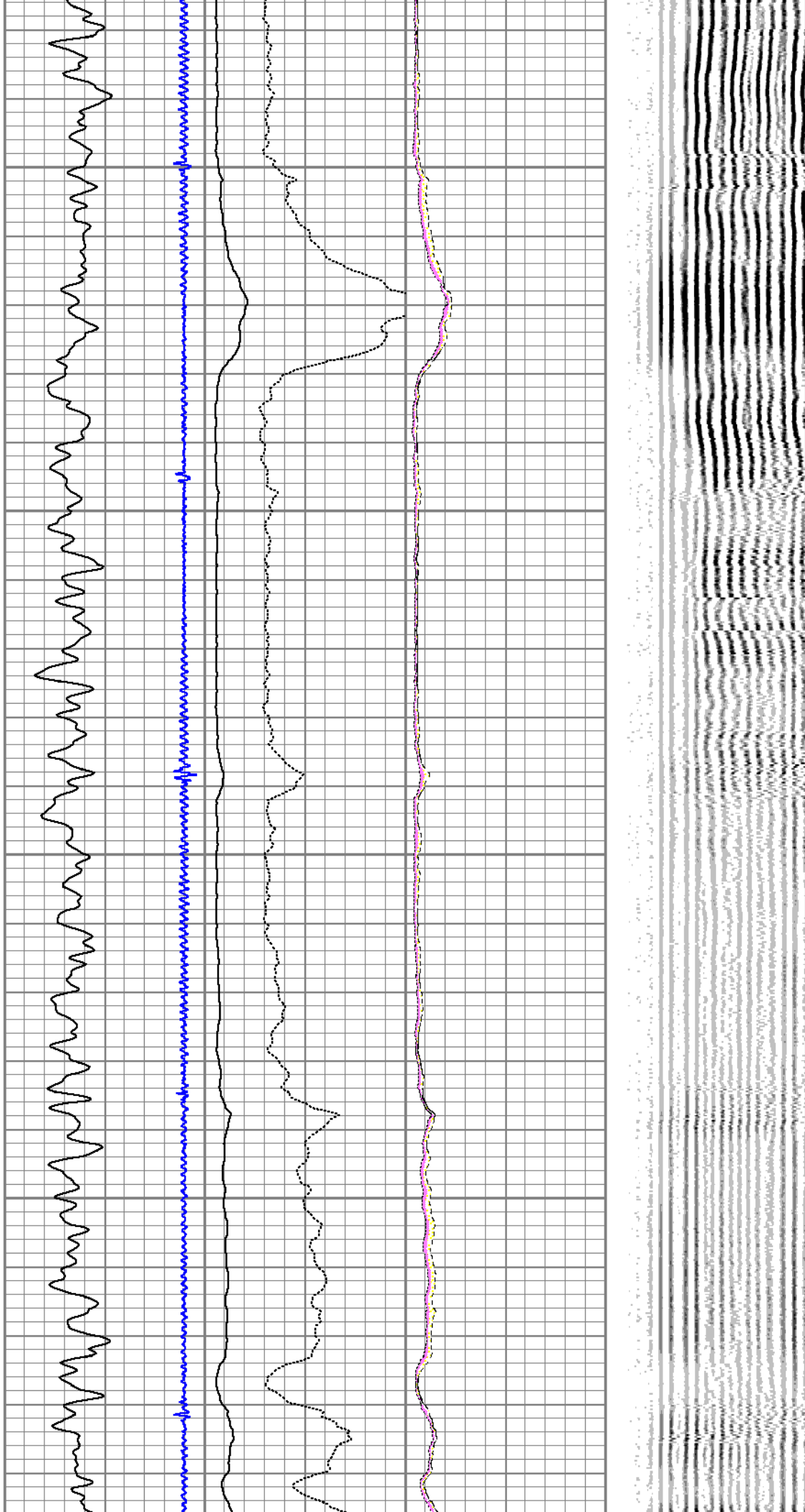
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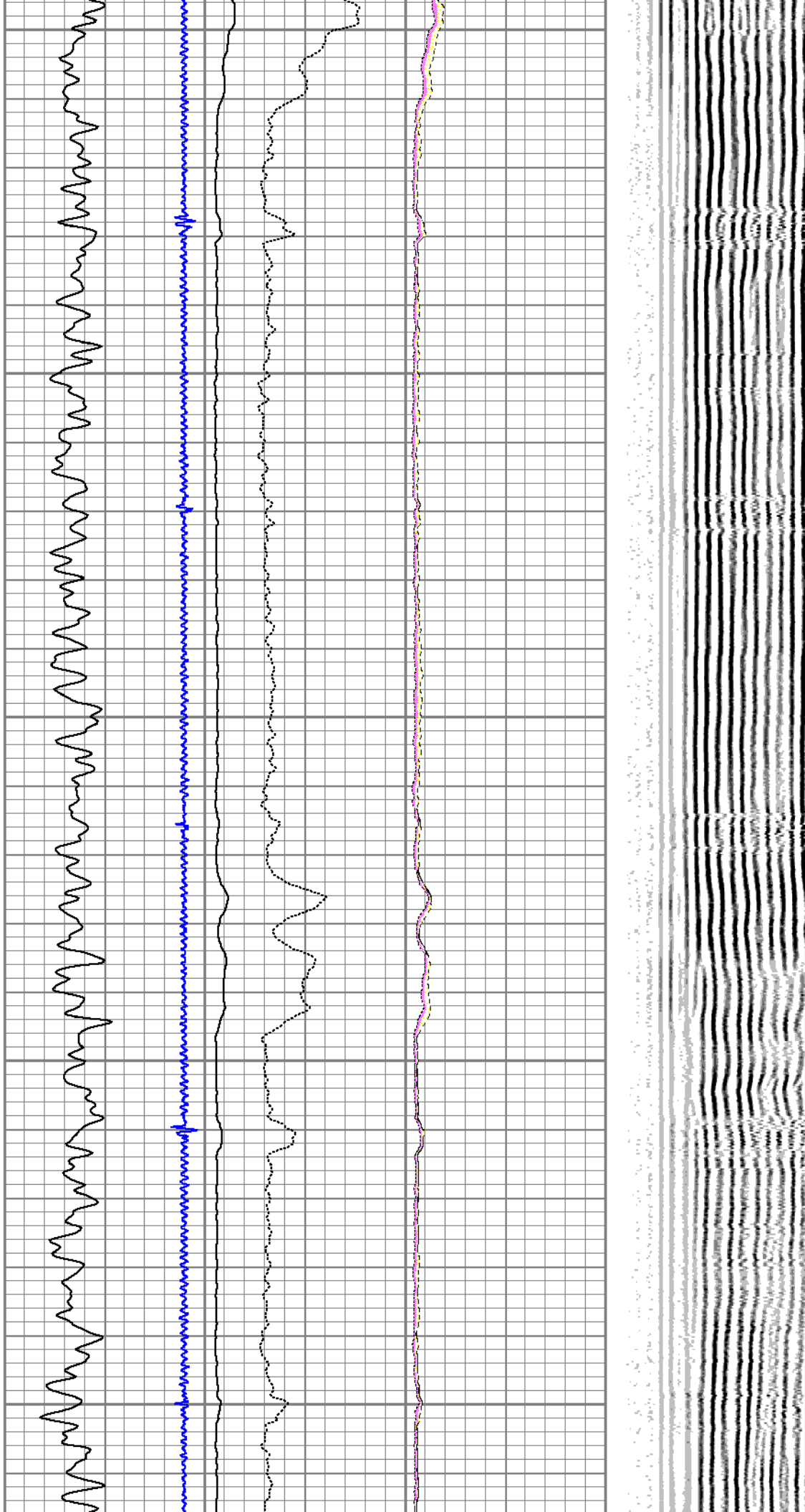
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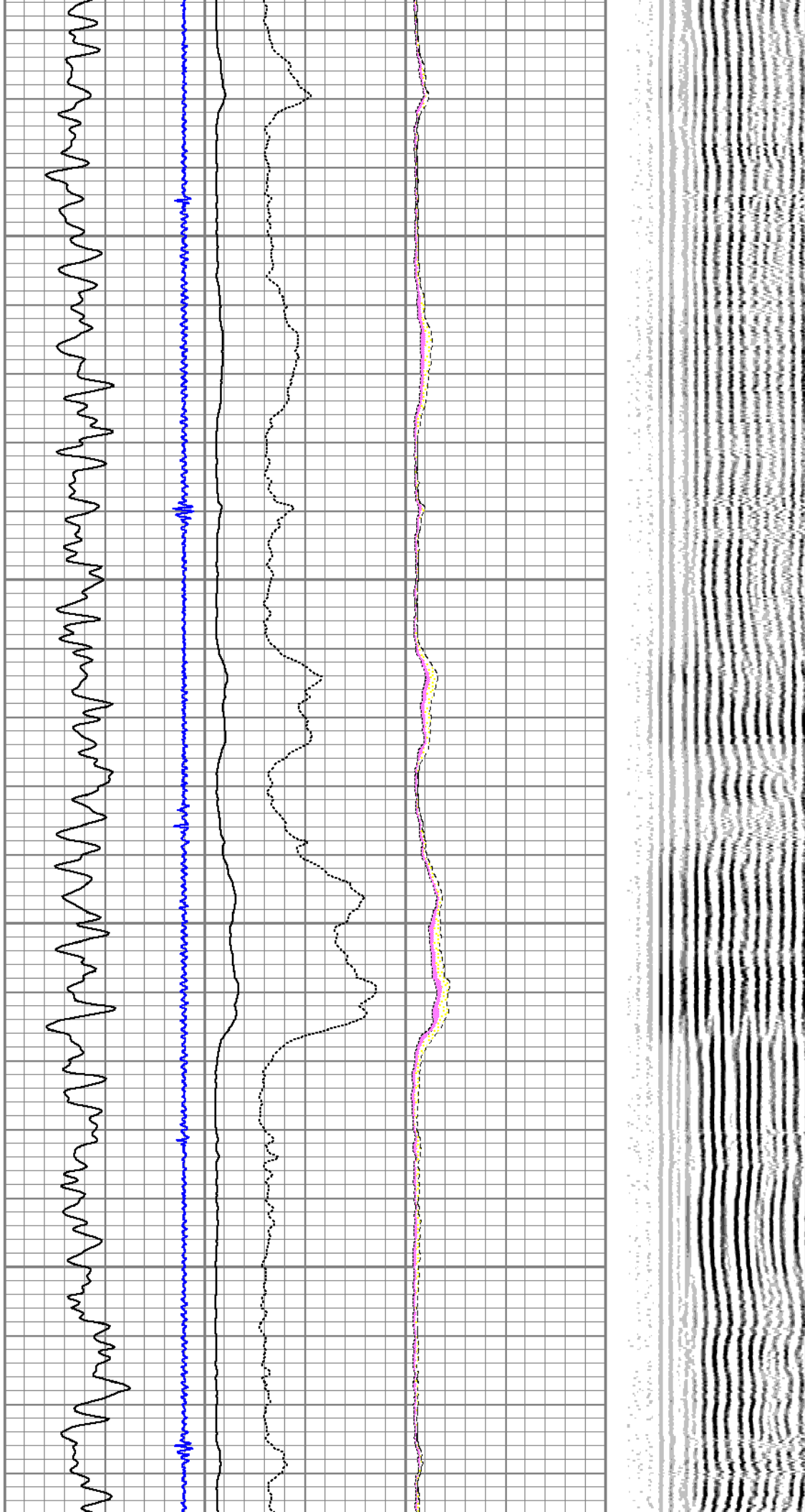
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5900



6000

6100



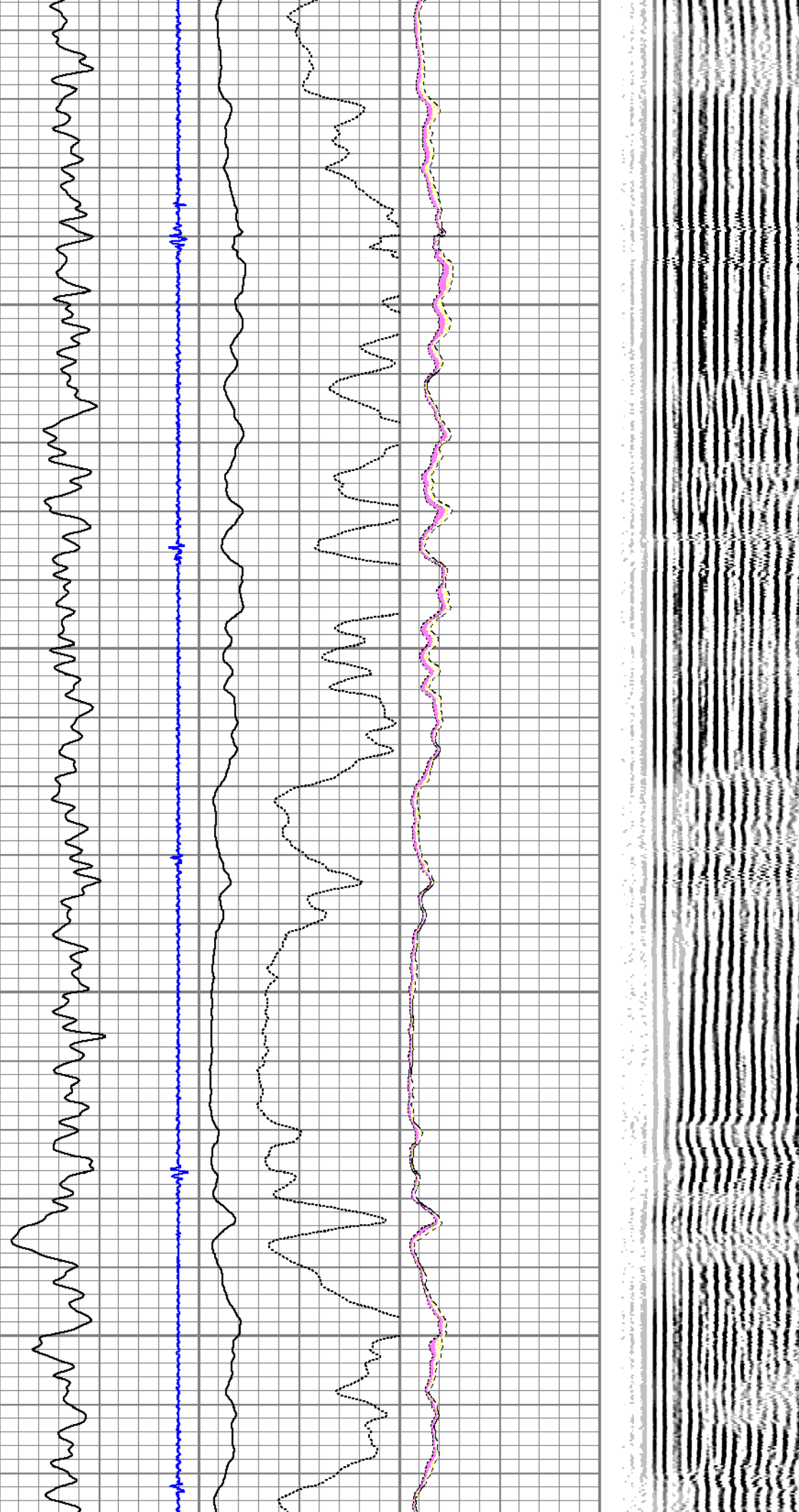
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6300



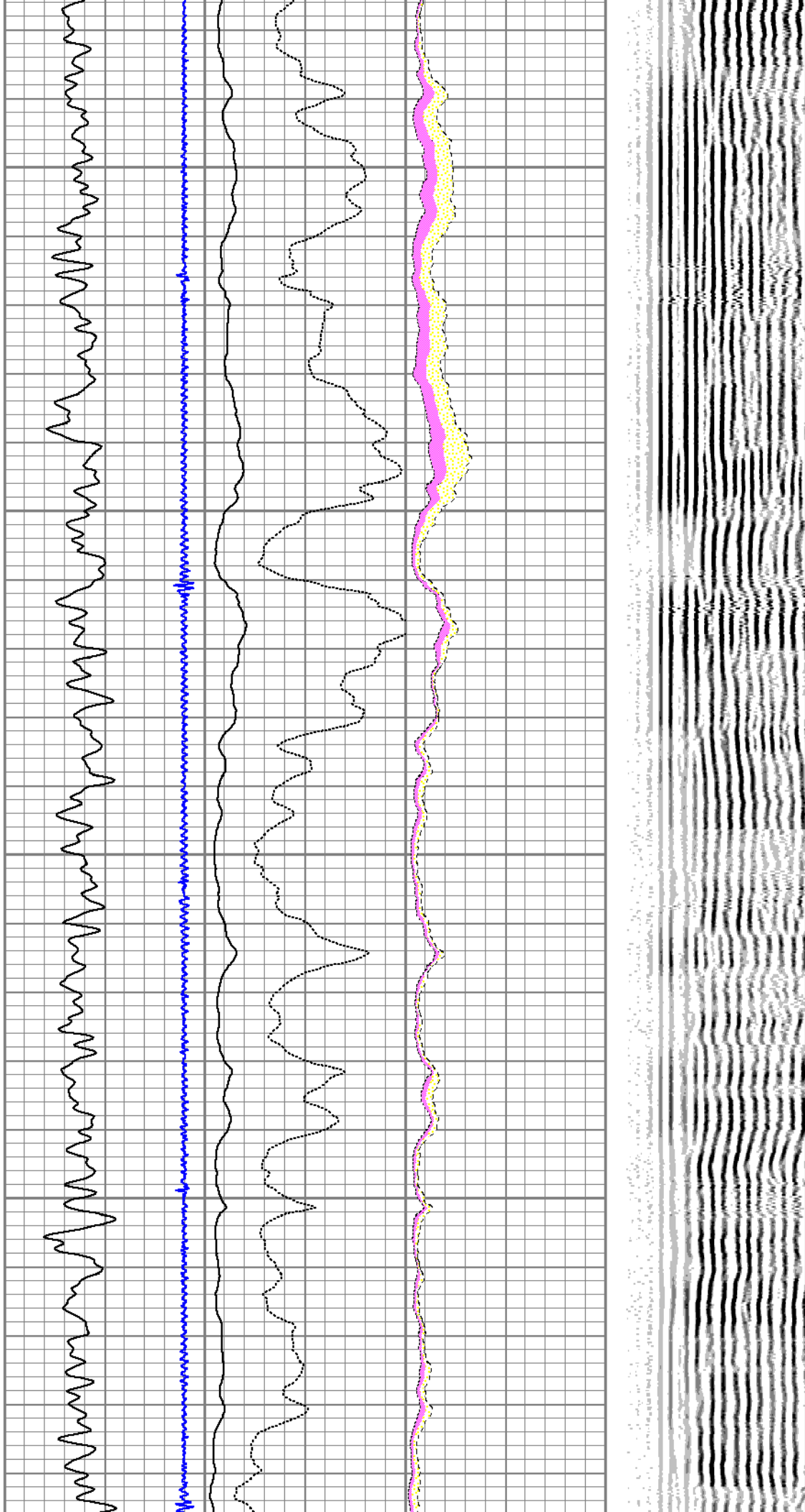
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6500



6600

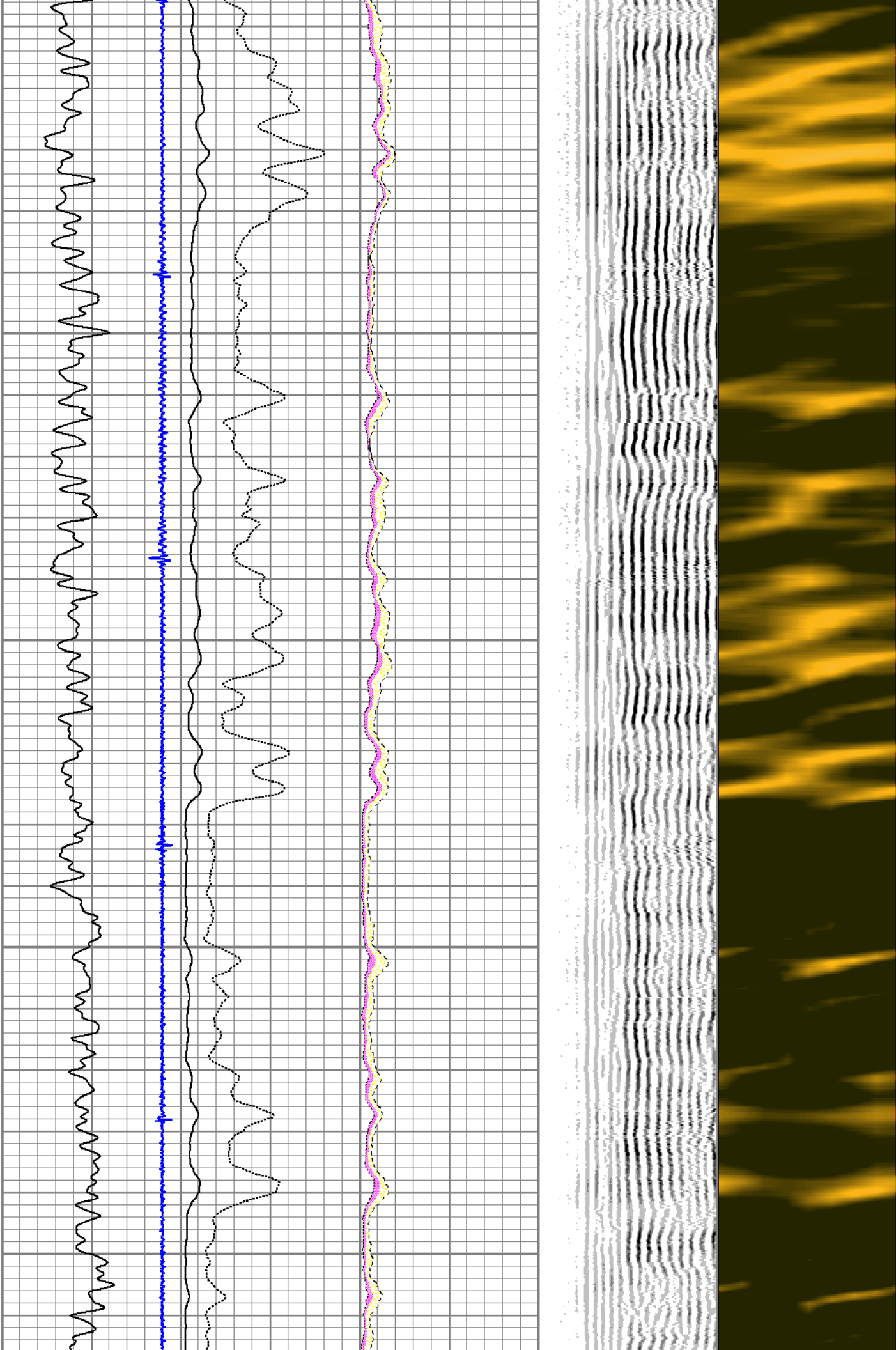
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6800

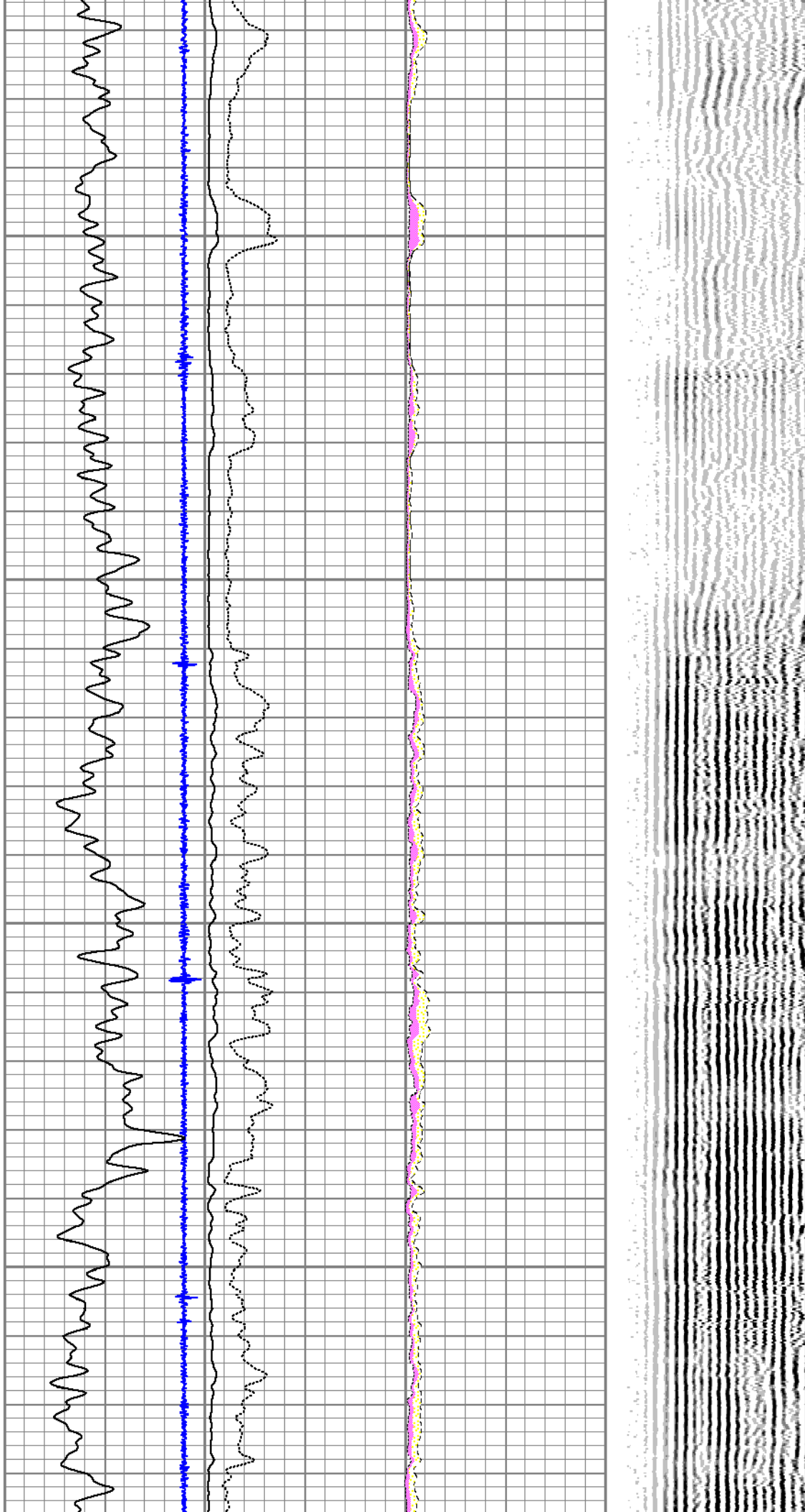
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7000



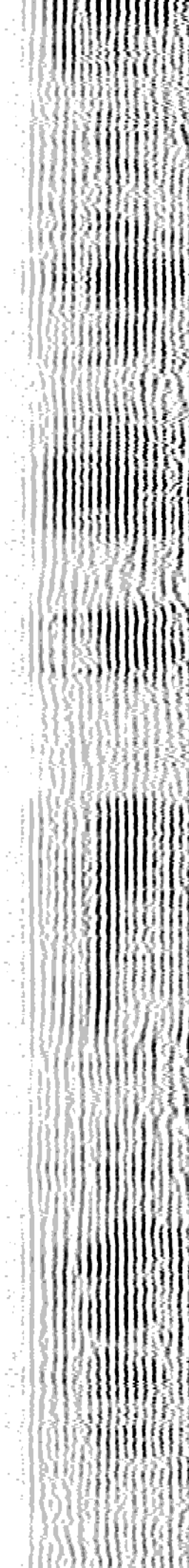
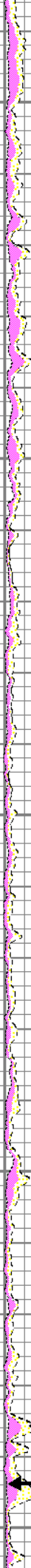
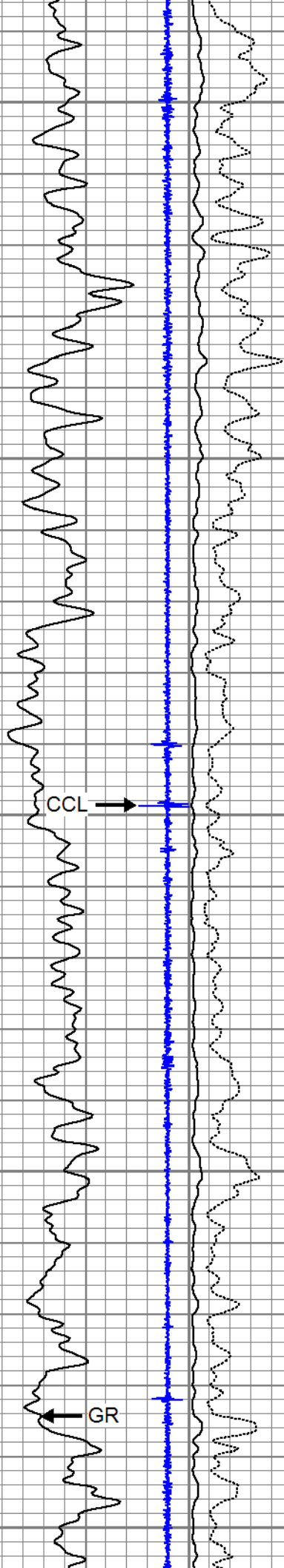
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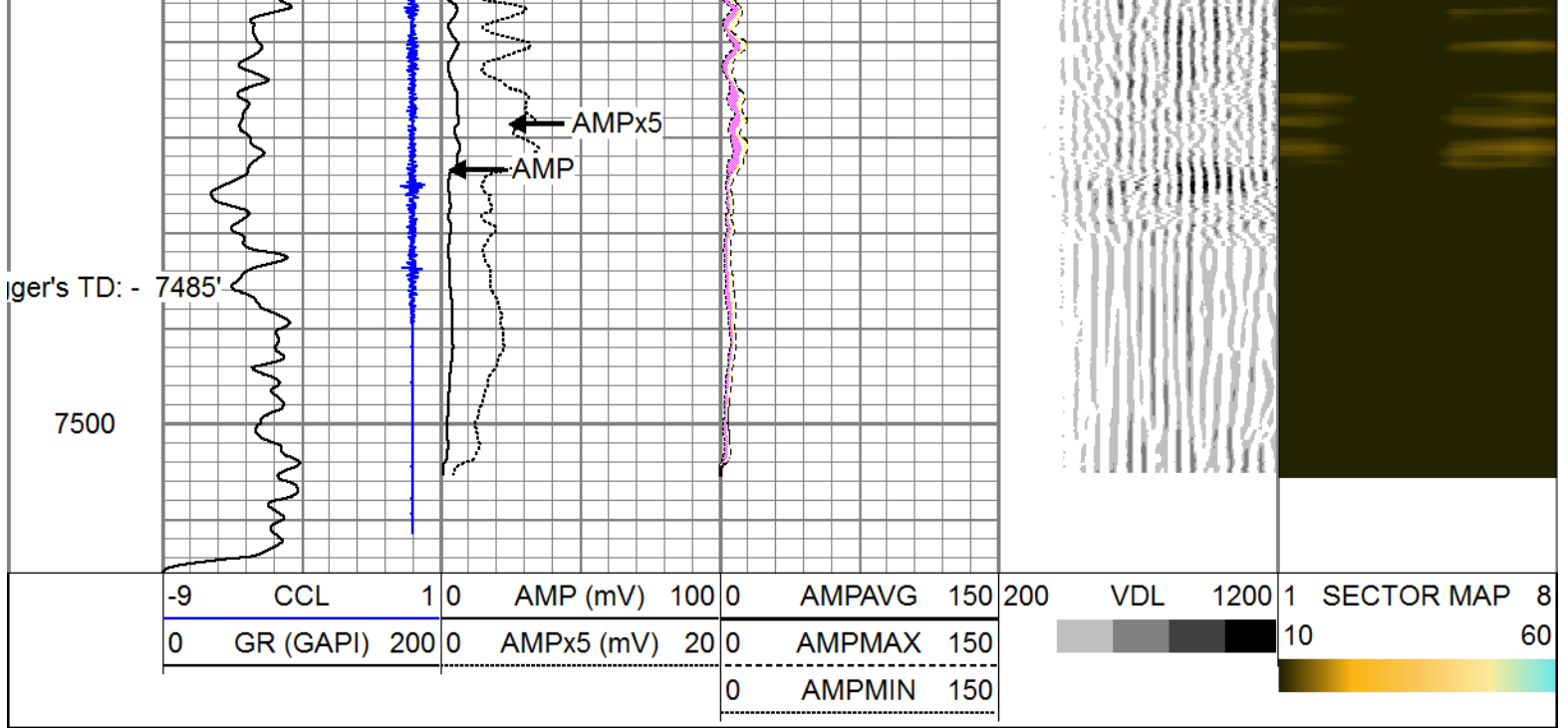
7200



7300

7400





Calibration Report

Database File: 13699.db
 Dataset Pathname: pass1
 Dataset Creation: Fri Oct 24 07:20:28 2014 by Log 0

Gamma Ray Calibration Report

Serial Number: 51013
 Tool Model: probe 2.75
 Performed: Thu Oct 23 02:18:02 2014

Calibrator Value: 1400.0 GAPI

Background Reading: 26.8 cps
 Calibrator Reading: 1120.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 130584
 Tool Model: RBT-C3

Calibration Casing Diameter: 7.000 in
 Calibration Depth: 145.996 ft

Master Calibration, performed Thu Oct 23 03:44:09 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.378	1.500	62.165	69.000	-0.570
CAL	0.012	1.029				
5'	0.012	0.239	1.500	62.165	70.000	-1.811
SUM						
S1	0.010	0.384	0.000	100.000	102.000	-2.698
S2	0.012	0.425	0.000	100.000	101.000	-3.023
S3	0.012	0.441	0.000	100.000	102.500	-2.894
S4	0.012	0.420	0.000	100.000	103.000	-3.034

S5	0.012	0.378	0.000	100.000	104.000	-3.372
S6	0.010	0.352	0.000	100.000	105.000	-2.925
S7	0.012	0.346	0.000	100.000	102.000	-3.679
S8	0.012	0.362	0.000	100.000	103.000	-3.547

Internal Reference Calibration, performed Wed Oct 10 17:00:00 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	1.029	1.000	0.000

Air Zero Calibration, performed Fri Oct 24 07:38:23 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	

Temperature Calibration Report

Serial Number: 130584
Tool Model: RBT-C3
Performed: Wed Aug 13 16:18:33 2014

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF

Gain: 0.77
Offset: 15.00
Delta Spacing 1

Log Variables

Database: C:\Warrior\Data\13699.db
Dataset: field/well/run1/pass2

Top - Bottom

PPT usec 0	CASEWGHT lb/ft 26	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.8	CASEOD in 7	PERFS 0
TDEPTH ft 0	BOTTEMP degF 194	BOREID in 8.75				